Commonwealth of Massachusetts Executive Office of Health and

Executive Office of Health and Human Services



State Health Care Innovation Plan

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1. Introduction

Massachusetts is a national leader in health care coverage and innovation – 98 percent of our residents and virtually all of our children have health care insurance. But health care coverage is not yet universally affordable. Ensuring that care is of the highest quality and also affordable is the next phase of health care reform in Massachusetts.

Massachusetts has taken a thoughtful and collaborative approach to this phase of health reform. In 2009, the Massachusetts Health Care Quality and Cost Council (QCC) developed the "Roadmap to Cost Containment," identifying eleven strategies that have the potential to reduce health care costs or cost growth. In 2011, Governor Deval Patrick introduced legislation proposing a balanced and comprehensive approach to health care cost containment. Included in this legislation were many of the strategies endorsed by the QCC, including payment reform, system integration and redesign, health resource planning, and malpractice reform. In 2012, the legislature passed, and the Governor signed into law, "An Act improving the quality of health care and reducing costs through increased transparency, efficiency and innovation." This historic law sets an annual target for the growth of total health care expenditures and supports strategies to reform payments, promote integrated delivery systems, increase transparency, address market power, promote wellness, reform malpractice policy, and support health information technology.

Massachusetts' state health care innovation plan reflects the vision laid out in the 2012 cost containment law and builds on several years of active, extensive stakeholder engagement on this topic. Massachusetts has already been developing many foundational aspects of health system transformation, in collaborative initiatives involving payers, providers, and other stakeholders. These multi-payer efforts include the Patient Centered Medical Home Initiative, the All Payer Claims Database, the state Health Information Exchange, and the Statewide Quality Advisory Committee. In addition, payers and providers in Massachusetts are highly innovative, with high participation in alternative payment methodologies such as Blue Cross Blue Shield's Alternative Quality Contract, Tufts' Coordinated Care model, the Medicare Shared Savings Program, and the Medicare Pioneer Accountable Care Organization program.

Our state health care innovation plan describes the current health care landscape in Massachusetts, identifying strengths of the current system as well as opportunities for improvement, and lays out a roadmap for health care transformation that will achieve the state's vision of high quality, affordable care for all.



2. The Health of Massachusetts

2.1 Demographics

Massachusetts has a population of 6.6 million. Compared to most other states in the nation, residents of the Bay State are older and wealthier. Fourteen percent of the Massachusetts population is age 65 or older, and the Census Bureau projects that by 2015, the 65+ population will make up 15 percent of the state's population.^{1,2}

In 2010, the median family income for state residents was \$62,072, the sixth-highest in the nation.³ Massachusetts' monthly unemployment rates have been consistently below the national average. From February 2010 to July 2012, Massachusetts' unemployment rate declined from a high of 8.7 percent to 6.1 percent.⁴ However, some populations experience much more unemployment. Only 33.2 percent of all non-institutionalized individuals with a disability were employed.⁵ In 2010, the long-term unemployment rate for workers with only a high school degree was nearly three times as high as the rate for workers with a B.A. degree or higher.⁶ The unemployment rate for Blacks in Massachusetts is over 10 percent.⁷

Despite the state's relative wealth, 10.5 percent of the state's population live below the federal poverty level. Some individuals in the state also receive public assistance in the form of food assistance (8.4 percent), Supplemental Security Income (4.7 percent), and cash public assistance income (2.7 percent). Certain groups are more likely to experience poverty than others. In 2007, Hispanics were four times as likely as non-Hispanic Whites to live below the poverty level (29 percent v. 7 percent). In 2010, almost 37.4 percent of children under 5 years of age in a female-headed household lived in

¹ U.S. Census Bureau. *State & County Quick Facts: Massachusetts*. Available at: http://quickfacts.census.gov/qfd/states/25000.html. Accessed on: Sep. 3, 2012.

² U.S. Census Bureau. *Projections of the Population, by Age and Sex, of States: 1995 to 2025.* Available at: http://www.census.gov/population/projections/state/stpjage.txt. Accessed on: Sept. 3, 2012.

U.S. Census Bureau. *American Community Survey Brief: Household Income for States 2009 and 2010.* Available at: http://www.census.gov/prod/2011pubs/acsbr10-02.pdf. Accessed on: Sept. 3, 2012.

⁴ Bureau of Labor Statistics. *Economy at a Glance: Massachusetts*. Available at: http://www.bls.gov/eag/eag.ma.htm. Accessed on: Aug. 31, 2012.

⁵ Bjelland, M.J., Erickson, W. A., Lee, C. G. *Disability Statistics from the American Community Survey (ACS)*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics (StatsRRTC). Available at: http://www.disabilitystatistics.org. Accessed on: Aug. 31, 2012.

⁶ Massachusetts Budget and Policy Center. *State of Working Massachusetts—Labor Day, 2012*. Available at: http://www.massbudget.org/report_window.php?loc=swma_labor_day_2012.html. Accessed on: Sep. 11, 2012. ⁷ U.S. Department of Labor. The African-American Labor Force in the Recovery. February 2012. p. 5. Available at:

http://www.dol.gov/ sec/media/reports/BlackLaborForce/BlackLaborForce.pdf. Accessed on: Sep. 11, 2012.

⁸ U.S. Census Bureau(2010). *Selected Economic Characteristics from the American Community Survey (ACS)*. Searched from: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS 10 5YR DP03&prodType=table. Accessed on: Sep. 3, 2012.

⁹ Massachusetts Department of Public Health. *Health of Massachusetts 2010.* Available at: http://www.mass.gov/eohhs/researcher/community-health/health-of-massachusetts.html. Accessed on: Aug. 31, 2012.



poverty. ¹⁰ Twenty-eight percent of non-institutionalized people with a disability live below the poverty level. ¹¹

In 2011, 84.1 percent of the Massachusetts population described themselves as white, 7.8 percent as black, and 5.6 percent as Asian. ¹² In terms of ethnicity, nearly 10 percent of the population described themselves as Hispanic. There are regional differences in the racial and ethnic composition of the population: in 2010, almost one-half of the Boston region's population was non-White, while only 10.7 percent of the Southeast region's population was non-White. ¹³

Nearly 11 percent of the state population has one or more types of disability including sensory, physical, mental, self-care, and/or difficulty living independently. The percentage of persons with disabilities increases with age, and over 33 percent of people sixty-five and older have one or more disabilities.¹⁴

2.2 Mortality Indicators

Massachusetts mortality indicators have improved over time and continue to compare favorably with the US: more than half of the leading cause-specific mortality rates are lower in Massachusetts than in the US, including cancer, heart disease, stroke, unintentional injuries, Alzheimer's disease, and diabetes. In 2009, the overall age-adjusted death rate for Massachusetts fell to a record low of 675 deaths per 100,000 persons, and life expectancy at birth reached an all-time high of 80.7 years. In 2009, 51,915 Massachusetts residents died, a number which was 3 percent lower than in 2008, and which is part of a decade-long decline that has averaged 1.1 percent per year since 2000. ¹⁵

In 2009, there were continued declines in many of the leading causes of death such as cancer, heart disease, stroke, influenza and pneumonia, and chronic lower respiratory disease. The continued decline in deaths from these chronic conditions may be related to prevention, early detection, and better treatment. Since 2000 there have been continued declines in rates for stroke (5.1 percent per year), influenza and pneumonia (5.0 percent per year), heart disease (3.7 percent per year), diabetes-

¹⁰ U.S. Census Bureau. State & County QuickFacts. Available at: http://quickfacts.census.gov/qfd/states/25000.html. Accessed on: Sep. 3, 2012.

¹¹ Bjelland, M.J., Erickson, W. A., Lee, C. G. *Disability Statistics from the American Community Survey (ACS)*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics (StatsRRTC). Available at: http://www.disabilitystatistics.org. Accessed on: Aug. 31, 2012.

¹² U.S. Census Bureau. State & County QuickFacts. Available at: http://quickfacts.census.gov/qfd/states/25000.html. Accessed on: Sep. 3, 2012.

¹³ U.S. Census Bureau. *Selected Economic Characteristics from the American Community Survey (ACS) (2010).* Searched from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_DP03&prodType=table. Accessed on: Sep. 3, 2012.

¹⁴ Bjelland, M.J., Erickson, W. A., Lee, C. G. *Disability Statistics from the American Community Survey (ACS)*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics (StatsRRTC). Available at: http://www.disabilitystatistics.org. Accessed on: Aug. 31, 2012.

¹⁵ Massachusetts Department of Public Health. *A Decade of Mortality; Massachusetts: 2000-2009*. Available at: http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-09.pdf. Accessed on: Sep. 3, 2012.



related death rates (3.2 percent per year), chronic lower respiratory disease (2.5 percent per year), and all cancers combined (1.8 percent per year).

In 2009, there were 124 deaths from HIV/AIDS, which was the lowest annual number of HIV/AIDS deaths in Massachusetts since the peak of the epidemic in 1994 (998 HIV/AIDS deaths).

In 2009, 70 percent of injury deaths were unintentional or accidental; 18 percent were suicides; 6 percent were homicides; and 3 percent were of undetermined intent. Suicide rates have been increasing by 2 percent per year since 2000, while homicide rates have remained stable.

The 2009 infant mortality rate (IMR) has decreased by 30 percent since 1990 but has remained stable since 2000. In 2009, Blacks continued to have the highest IMR among all race and ethnicity groups at 7.8 deaths per 1,000 live births followed by Hispanics at 7.1 deaths per 1000 live births. The IMR for Blacks has been declining at an average of 3.5 percent per year since 2000.

Premature mortality and mortality amenable to health care are two summary measures that have been developed to enhance the utility of mortality data to identify opportunities for potential system changes.

In 2009, premature deaths (deaths before age 75) accounted for 37 percent of all deaths in the state and have been declining by 3.3 percent per year since 2003.¹⁷

Amenable mortality is defined as "deaths from certain causes that should not occur in the presence of timely and effective health care." An important difference between amenable mortality and premature mortality is that the causes of amenable mortality do not include injuries. Amenable mortality includes deaths from causes amenable to secondary prevention through early detection and treatment: this includes causes where screening and treatment are effective; for example breast, cervical, and skin cancer. Overall, amenable mortality rates have been declining at 4.0 percent per year since 2000.¹⁸

2.3 The Burden of Chronic Disease

While the Commonwealth has been making significant gains in reducing the burden of acute and chronic disease, there are still many opportunities for further improvement.

¹⁶ Massachusetts Department of Public Health. *A Decade of Mortality; Massachusetts: 2000-2009.* p. 6. Available at: http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-09.pdf. Accessed on: Sep. 3, 2012.

¹⁷ Massachusetts Department of Public Health. *A Decade of Mortality; Massachusetts: 2000-2009*. Available at: http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-09.pdf. Accessed on: Sep. 3, 2012.

¹⁸ Massachusetts Department of Public Health. *A Decade of Mortality; Massachusetts: 2000-2009*. Available at: http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-09.pdf. Accessed on: Sep. 3, 2012.



For example, nearly 60 percent of Massachusetts adults are overweight or obese, and the rate of obesity is increasing (Figure 1).¹⁹

Figure 1. Percent of Residents Obese (Body Mass Index>=30), 1995-2010²⁰

Obesity is a problem for children as well. Studies estimate that ten percent of high school students are obese.²¹

Clear disparities exist in obesity rates. Hispanic and Black adults, respectively, are 50 and 60 percent more likely to be obese than their White counterparts.²² Obesity is also more prevalent among adults with less education and lower incomes.²³

Obesity is associated with significant health consequences, including premature death, diabetes, heart disease, stroke, high blood pressure, certain types of cancer, joint disease, and breathing problems.

¹⁹ U.S. Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Obesity in Massachusetts 2011.* Available at:

http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=OB&yr=2011&qkey=8261&state=MA. Accessed on: Sep. 3, 2012.

²⁰ U.S. Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Obesity in Massachusetts 2011.* Available at:

http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=OB&yr=2011&qkey=8261&state=MA. Accessed on: Sep. 3, 2012.

²¹ U.S. Centers for Disease Control and Prevention (CDC). *The Obesity Epidemic and Massachusetts Students. Available at:* http://www.cdc.gov/healthyyouth/yrbs/pdf/obesity/ma_obesity_combo.pdf. Accessed on: Sep. 3, 2012).

²² Massachusetts Department of Public Health. *Health of Massachusetts, Impact of Overweight and Obesity, 1998 through 2007.* Available at: http://www.mass.gov/eohhs/docs/dph/mass-in-motion/impact-obesity.doc. Accessed on: Sep. 3, 2012.
²³ Massachusetts Department of Public Health. *Health of Massachusetts*. 2010. Available at:

http://www.mass.gov/eohhs/researcher/community-health/health-of-massachusetts.html. Accessed on: Aug. 30, 2012.



Obesity also has significant economic costs: obesity is estimated to have cost the United States about \$147 billion in direct medical costs in 2008.²⁴

To address the significant public health problem of obesity, Massachusetts launched Mass In Motion in January 2009. Mass In Motion aims to promote wellness and to prevent overweight and obesity in Massachusetts, with a particular focus on the importance of healthy eating and physical activity.

Mass In Motion includes:

- Interactive website and public education campaign.
- Healthy food requirements for state agencies for all food purchased and served.
- Funding for cities and towns to develop policy and environmental change initiatives.
- Workplace initiative to improve the health of employees and support healthier worksites.

Mass In Motion is the first statewide health initiative to be supported by all of the Commonwealth's major health-funding foundations. The following partners contribute funding that will allow for community wellness grants to be awarded throughout Massachusetts: Blue Cross Blue Shield of Massachusetts, Blue Cross Blue Shield of Massachusetts Foundation, Boston Foundation, Harvard Pilgrim Health Care Foundation, Metrowest Community Health Care Foundation, Partners HealthCare, and Tufts Health Plan Foundation. This strong public-private partnership provides a foundation and infrastructure that allowed the Massachusetts Department of Public Health to successfully compete for federal dollars. MDPH was awarded one of only three Childhood Obesity Research Demonstration grants and was the only state health department in the nation to be awarded two Community Transformation Grants.

Overweight and obesity are important risk factors for heart disease, diabetes, and high blood pressure. In Massachusetts, as is the case nationally, diabetes, heart disease, and stroke are significant causes of illness and death. In 2010, 388,000 (7.2 percent) of the Massachusetts adult population reported that they have been diagnosed with diabetes.²⁵

In 2009, diabetes was the seventh leading cause of death in Massachusetts.²⁶ Diabetes was also associated with many more deaths as a contributing condition. In 2010 men had diabetes at higher rates than women (7.9 percent vs. 7.0 percent). Blacks and Hispanics had a higher rate of diabetes than White populations (11.1 percent and 10.6 percent compared with 7.2 percent). Those with less income

²⁴ Centers for Disease Control and Prevention (CDC). *Overweight and Obesity: Causes and Consequences.* Available at: http://www.cdc.gov/obesity/adult/causes/index.html. Accessed on: Sep. 3, 2012.

²⁵ Centers for Disease Control and Prevention (CDC):. *Diabetes Data & Trends: Massachusetts – Total Number of Adults with Diagnosed Diabetes, 1994-2010.* Available at:

http://apps.nccd.cdc.gov/DDTSTRS/Index.aspx?stateId=25&state=Massachusetts&cat=prevalence&Data=data&view=TOP&trend=prevalence&id=1. Accessed on: Sep. 3, 2012.

²⁶ Centers for Disease Control and Prevention: National Center for Health Statistics. *Massachusetts Fact Sheet.* Available at: http://www.cdc.gov/nchs/pressroom/states/MA_2012.pdf. Accessed on: Aug. 31, 2012.



and fewer years of education have significantly higher rates of diabetes.²⁷ Higher rates of diabetes are found in certain communities, including Bristol County (9.9 percent), Hampden County (9.3 percent) and Suffolk County (8.6 percent), compared to the state as a whole (7.2 percent).²⁸

The rate of heart disease has declined from 2006 (5.7 percent) to 2010 (5.5 percent).²⁹ However, as of 2009, heart disease remained the leading cause of death in Massachusetts.³⁰ Some groups in the Commonwealth have higher rates of heart disease and stroke than others. These include people ages 75 or older, men, persons with disabilities, and Blacks. Those with the lowest education levels and lowest income are also disproportionately affected.³¹

Twenty-nine (29.2) percent of adults in Massachusetts have been told they have high blood pressure, well above the Healthy People 2020 target of 26.9 percent. In 2011 the rate for Blacks is 33.6 percent; for Whites, 30.1 percent; and for Hispanics, 23.2 percent. Older individuals are at greatest risk of having high blood pressure. Of the population aged 65 and older, 59.6 percent have high blood pressure compared with 27.9 percent of those aged 45-54.

In 2011, 34.3 percent of Massachusetts residents aged 18 years and older have been told they have high cholesterol. A higher proportion of males (35.6 percent) reported high cholesterol levels compared with females (33.1 percent). Whites (35.4 percent) reported the highest proportion of all racial/ethnic groups.³⁴ Prevention and control of cardiovascular disease remains an important health and public health priority for Massachusetts.

²⁷ U.S. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Diabetes in Massachusetts 2010.* Available at:

http://apps.nccd.cdc.gov/brfss/race.asp?cat=DB&yr=2010&qkey=1363&state=MA. Accessed on: Sep. 3, 2012.

U.S. Centers for Disease Control and Prevention. *Diabetes Data & Trends: County Level Estimates of Diagnosed Diabetes – State Map.* Available at: http://apps.nccd.cdc.gov/DDT STRS2/CountyPrevalenceData.aspx?mode=DBT. Accessed on: Aug. 27, 2012.

²⁹ Fang J, Shaw KM, Keenan NL. Prevalence of coronary heart disease—United States, 2006-2010. *Morbidity and Mortality Weekly Report* 2011; 60(40):1377-1381. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6040a1.htm. Accessed on: September 10, 2012.

³⁰U.S. Centers for Disease Control and Prevention: National Center for Health Statistics. *Massachusetts Fact Sheet.* Available at: http://www.cdc.gov/nchs/pressroom/states/MA 2012.pdf. Accessed on: Aug. 31, 2012.

³¹ Massachusetts Department of Public Health. *Health of Massachusetts*. 2010. Available at:

http://www.mass.gov/eohhs/researcher/community-health/health-of-massachusetts.html. Accessed on: Aug. 30, 2012.

³² U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Hypertension Awareness Massachusetts 2011*. Available at:

http://apps.nccd.cdc.gov/brfss/display.asp?cat=HA&yr=2011&qkey=8051&state=MA. Accessed on: Sep. 3, 2012. Healthy People 2020. *Objectives: Heart Disease and Stroke.* Available at:

http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=21. Accessed on: Sep. 3, 2012.

³³ U.S. Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Hypertension Awareness Massachusetts 2011.* Available at:

http://apps.nccd.cdc.gov/brfss/display.asp?cat=HA&yr=2011&qkey=8051&state=MA. Accessed on: Sep. 3, 2012.

³⁴ U.S. Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Hypertension Awareness Massachusetts 2011.* Available at:

http://apps.nccd.cdc.gov/brfss/display.asp?cat=HA&yr=2011&qkey=8051&state=MA. Accessed on: Sep. 3, 2012...



Asthma prevalence is also high in Massachusetts. In 2010, 10.4 percent of adults in Massachusetts reported having asthma, above the national average of 9.0 percent.³⁵ In the same year, nearly 10 percent of children in the state reported having asthma. Children ages 5-9 (15.3 percent) and 10-14 (16.5 percent) have lifetime prevalence rates of asthma that are higher than the national average (14.0 percent and 15.2 percent respectively).³⁶ Age-adjusted hospitalization rates for asthma are higher in Massachusetts than nationally: in 2008, the rate was 155.5/100,000 compared with the U.S. rate of 144/100,000.³⁷

In Massachusetts, children ages zero to four years, adults ages 65 and older, and Black and Hispanic residents have much higher rates of hospitalization due to asthma compared to the overall state rate. Asthma hospitalization rates among Black and Hispanic residents were approximately three times higher than the rate for White residents. The costs associated with asthma are substantial. In 2007 in Massachusetts, the total hospital charges associated with asthma exceeded \$136 million. 39

Prevention, early detection, and treatment of cancer are also important concerns for the state. For example, in 2008, lung cancer was the second most commonly diagnosed type of cancer in both men and women, accounting for 13.7 percent of all cancer cases in men and 14.2 percent in women.⁴⁰

Smoking is a known risk factor for lung disease, and the Commonwealth has made significant strides in encouraging smoking cessation. From 2000 to 2010, smoking rates decreased from 19.9 percent to 14.1 percent.⁴¹

Breast cancer remains the leading cause of cancer death among women with 21.9 deaths per 100,000 women in 2009. ⁴² Mammography can help detect breast cancer at earlier stages. In 2010, 83.6 percent of women over the age of 40 reported having a mammogram within the last two years. ⁴³

³⁵ U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Asthma in Massachusetts 2010.* Available at:

http://apps.nccd.cdc.gov/brfss/display.asp?cat=AS&yr=2010&qkey=4416&state=MA. Accessed on: Sep. 3, 2012.

³⁶ U.S. Centers for Disease Control and Prevention. *2010 Child Asthma Data: Prevalence Tables*. Available at: http://www.cdc.gov/asthma/brfss/2010/child/lifetime/tableL3.htm. Accessed on: Sep. 16, 2012.

³⁷ U.S. Centers for Disease Control and Prevention. National Asthma Control Program. *Asthma in Massachusetts*. Available at: http://www.cdc.gov/asthma/stateprofiles/Asthma in MA.pdf. Accessed on: Aug. 30, 2012.

³⁸ Massachusetts Department of Public Health Asthma Prevention and Control Program. *Burden of Asthma in Massachusetts*. April 2009. Available at: http://www.mass.gov/eohhs/consumer/wellness/disease-prevention/asthma/resources-and-more-information.html. Accessed on: Sep. 16, 2012.

³⁹ Massachusetts Department of Public Health. *Health of Massachusetts*. 2010. Available at:

http://www.mass.gov/eohhs/researcher/community-health/health-of-massachusetts.html. Accessed on: Aug. 30, 2012.

⁴⁰ Massachusetts Department of Public Health. *Cancer Incidence and Mortality in Massachusetts 2004-2008: Statewide Report*. http://www.mass.gov/eohhs/docs/dph/cancer/registry-statewide-04-08-report.pdf (Sept. 3, 2012)

⁴¹ U.S. Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Tobacco Use Massachusetts 2010.* Available at:

http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=TU&yr=2010&qkey=4396&state=MA. Accessed on: Sep. 3, 2012.

⁴² National Cancer Institute. *State Cancer Profiles*. Available at: http://statecancerprofiles.cancer.gov/cgibin/deathrates/deathrates.pl?25&055&00&2&001&1&1&1. Accessed on: Sep. 3, 2012.



For cervical cancer, Massachusetts women have a high rate of cervical cancer screening: 88.9 percent of women in the state reporting having a Pap test within the past three years. Death from cervical cancer is much less common in Massachusetts women than in U.S. women, with rates of 1.4/100,000 vs. 2.4/100,000 respectively.

Another important consideration in the health of Massachusetts is the burden of mental illness and substance abuse. In 2011, 16.7 percent of Massachusetts adults reported being told that they had some form of depression. Health problems occur across the lifespan, affecting persons of all racial and ethnic groups, both genders, and all educational and socioeconomic groups. One in four high school students (25 percent) and 15 percent of middle school students reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some of their usual activities. In adults, poor mental health was strongly associated with smoking, obesity, lack of physical activity, and chronic diseases such as diabetes and heart disease. Thus, addressing the burden of mental illness could have important benefits for the health of the population as a whole.

In 2007-2008, Massachusetts' rates for several categories of drug use ranked among the ten highest rates in the nation: past-month illicit drug use among young adults age 18-25; past-month marijuana use among young adults age 18-25; illicit drug dependence among persons age 12 or older; and illicit drug dependence among young adults age 18-25. The National Survey on Drug Use and Health found that 10.89 percent of Massachusetts residents reported using illicit drugs in the past month, compared with the national average of 8.35 percent. The rates of unmet drug and alcohol treatment need for all age groups have generally been above the national rates based on national surveys conducted from

⁴³ U.S. Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Women's Health Massachusetts 2010.* Available at:

http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=WH&yr=2010&gkey=4421&state=MA. Accessed on: Sep. 3, 2012.

⁴⁴ U.S. Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Women's Health Massachusetts 2010.* Available at:

http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=WH&yr=2010&qkey=4426&state=MA. Accessed on: Sep. 3, 2012.

⁴⁵ National Cancer Institute. *State Cancer Profiles*. Available at: http://statecancerprofiles.cancer.gov/cgibin/deathrates/deathrates.pl?25&057&00&2&001&1&1&1. Accessed on: Sep. 3, 2012.

⁴⁶ U.S. Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System. *Prevalence and Trend Data: Chronic Health Indicators Massachusetts 2011.* Available at:

http://apps.nccd.cdc.gov/brfss/display.asp?cat=CH&yr=2011&qkey=8441&state=MA. Accessed on: Sep. 3, 2012.

⁴⁷ Massachusetts Department of Elementary and Secondary Education. *2011 Health and Risk Behaviors of Massachusetts Youth*. Available at: http://www.doe.mass.edu/cnp/hprograms/yrbs/. Accessed on: Sep. 3, 2012.

⁴⁸ Massachusetts Department of Public Health. *Health of Massachusetts*. 2010. Available at:

http://www.mass.gov/eohhs/researcher/community-health/health-of-massachusetts.html. Accessed on: Aug. 30, 2012.

⁴⁹ Office of National Drug Control Policy Programs. *Massachusetts Drug Control Update*. Available at:

http://www.whitehouse.gov/sites/default/files/docs/state profile - massachusetts.pdf. Accessed on: Sep. 6, 2012.

⁵⁰ Substance Abuse and Mental Health Services Administration. *State Estimates of Substance Use from the 2007-2008*National Survey on Drug Use and Health. Available at: http://store.samhsa.gov/product/State-Estimates-of-Substance-Use-and-Mental-Disorders-from-the-2008-2009-National-Survey-on-Drug-Use-and-Health-NSDUH-/SMA11-4641. Accessed on: Sep. 6, 2012. Table B.1.



2002 to 2006, and the rates for unmet drug treatment need for the age group 18-25 have been among the highest in the country. ⁵¹

Throughout the past decade, poisonings, which include fatal drug overdoses, was the leading cause of injury death in Massachusetts. Opioids, including heroin, oxycodone, morphine, codeine, and methadone, continue to be the agent most associated with poisoning deaths (67 percent). 52

Additional information about the health of Massachusetts can be found in a number of publications available through the state's website. These are summarized in Appendix 1.

3. Health Care Indicators: Coverage, Access, Costs, and Quality

3.1 Coverage and Access to Care

Since the enactment of the state's landmark health reform law in 2006, the Commonwealth has achieved nearly universal health care coverage for all of its residents. The 2006 law, known as Chapter 58 of the Acts of 2006, was built on a framework of shared responsibility, between individuals, employers, and the government. Chapter 58 provided subsidies to low-income individuals to help them obtain insurance coverage, facilitated the purchase of insurance by creating the Health Connector, our health insurance exchange, and instituted penalties for individuals without insurance coverage and for employers who do not provide insurance for their employees.

Massachusetts is proud to have the highest rate of health insurance coverage in the country, with nearly universal coverage for both children (99.8 percent) and adults (98.1 percent).⁵³

Among the insured in Massachusetts, most obtain insurance through their employer (66.4 percent). Sixteen (16.7) percent have Medicare coverage, and the remainder (16.9 percent) have public or other coverage.⁵⁴

Employers in Massachusetts are more likely than their national counterparts to offer coverage to their employees: 77 percent of employers offer health coverage in 2010 compared to 69 percent nationally.⁵⁵

⁵¹ Substance Abuse and Mental Health Services Administration. *States in Brief*: Massachusetts. Available at: http://www.samhsa.gov/statesinbrief/2009/MASSACHUSETTS 508.pdf. Accessed on: Sep. 6, 2012.

⁵² Massachusetts Department of Public Health. *A Decade of Mortality Massachusetts: 2000-2009*. Available at: http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-09.pdf. Accessed on: Sep. 3, 2012.

Massachusetts Division of Health Care Finance and Policy. 2010 Massachusetts Health Insurance Surveys. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/pubs/10/mhis-fact-sheet-12-2010.pdf. Accessed on: Aug, 31, 2012.

⁵⁴ Phadera L, Long SK. Health Insurance Coverage and Access to Care in Massachusetts: Detailed Tabulations Based on the 2010 Massachusetts Health Insurance Survey. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/pubs/11/2010-mhis-detailed-tables.pdf. Accessed on: Sep. 6, 2012. Table A.2-1.

⁵⁵ Massachusetts Division of Health Care Finance and Policy. *Massachusetts Employer Survey 2010.* Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/pubs/11/mes-results-2010.pdf. Accessed on: Sep. 6, 2012.



Chapter 58 has also increased access to health care services. Since 2006, residents report having fewer unmet health care needs due to health care cost and increased access to doctors and preventative services. Since 2006, fewer families with incomes less than 300 percent of the Federal Poverty Level (FPL) reported unmet health care needs (from 34 percent in 2006 to 26 percent in 2009). Families between 300-500 percent FPL also experienced a decrease (from 22 percent to 17 percent), as did adults with chronic conditions (from 30 percent to 23 percent). ⁵⁶

The improvements in health care coverage have started to close racial disparities in access to care. Ninety percent of all adults in the state now report having a usual source of care, compared with 91 percent of adults of minority race or ethnicity.⁵⁷ Eighty-seven percent of white non-Hispanic adults report seeing a doctor in the past year compared to 84 percent of adults of minority race or ethnicity.⁵⁸

Since 2006, the state has seen a 3.8 percent reduction in the use of emergency rooms (ER) overall and a 3.8 percent reduction in the use of ERs for non-emergent conditions. However, state residents use nearly 60 percent more hospital outpatient services than the rest of the country (at 3,239 visits per 1,000 residents). However, state residents use

Additional information about health care coverage and access in Massachusetts can be found in several reports on the state's website. These are listed in Appendix 1.

3.2 Health Care Costs

Massachusetts spends more per capita on health care than any other state in the nation, with per capita personal health care spending of \$9,278 in 2009.⁶¹ Health care spending growth has far

⁵⁶ Blue Cross Blue Shield Foundation. Health Reform in Massachusetts: Expanding Access to Health Insurance Coverage. Assessing the Results. April 2011. Available at: http://bluecrossmafoundation.org/health-reform/~/media/d0dda3d667be49d58539821f74c723c7.pdf. Accessed on: Sep. 11, 2012. Slide 26.

⁵⁷ Blue Cross Blue Shield Foundation. Health Reform in Massachusetts: Expanding Access to Health Insurance Coverage. Assessing the Results. April 2011. Available at: http://bluecrossmafoundation.org/health-reform/~/media/d0dda3d667be49d58539821f74c723c7.pdf. Accessed on: Sep. 11, 2012. Slide 27.

⁵⁸ Blue Cross Blue Shield Foundation. Health Reform in Massachusetts: Expanding Access to Health Insurance Coverage. Assessing the Results. April 2011. Available at: http://bluecrossmafoundation.org/health-reform/~/media/d0dda3d667be49d58539821f74c723c7.pdf. Accessed on: Sep. 11, 2012. Slide 29.

⁵⁹ Blue Cross Blue Shield Foundation. Health Reform in Massachusetts as of Fall 2010: Getting Ready for the Affordable Care Act & Addressing Affordability. January 2012. Accessed at: http://www.bcbsmafoundation.org/Policy-and-Research/Reports-By-Topic/Massachusetts-Health-

Reform/~/media/Files/Publications/Policy%20Publications/MHRS%20Report%20Jan2012.pdf. Accessed on: Sep. 11, 2012. Page iv.

⁶⁰ Blue Cross Blue Shield Foundation of MA. *Health Care Costs and Spending in Massachusetts: A Review of the Evidence*. 2012. Slide 27. Available at:

http://bluecrossmafoundation.org/~/media/Files/Publications/Policy%20Publications/Cost%20Deck%20March%20report.pdf. Accessed on: Sep. 11, 2012.

⁶¹ Medicaid & Medicaid Research Review. *Health Spending by State of Residence, 1991-2009.* Available at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MMRR/Downloads/MMRR2011 001 04 A03-.pdf. Accessed on: Aug. 31, 2012.



outpaced inflation. Without significant cost containment, total health care spending in Massachusetts will increase from an estimated \$68 billion in 2010 to \$123 billion in 2020. 62

Both private and public payers have seen a significant rise in health care costs over the past 20 years. In 1991, total personal health care expenditures were estimated to be just below \$20 billion. By 2009, this number had risen to \$61.2 billion. These rising costs are born by both private and public payers: in 2009, public payers contributed over 22.8 billion dollars, with Medicaid spending 11.1 billion dollars and Medicare spending 11.7 billion dollars, compared to 3.5 billion each in 1991. 63

Health care costs are also a burden to the state's citizens. With wages mostly stagnant since the economic crisis, health care costs are consuming a larger percentage of families' incomes. In 2010, one in five non-elderly adults reported difficulty paying their medical bills.

The high health care expenditures are reflected in health care premiums. In 2010, Massachusetts had the ninth highest premium level for family coverage among all 50 states and the District of Columbia. Premium rate increases have slowed in recent years, although overall premium increases continue to outpace inflation. The slowing of premium growth in Massachusetts is consistent with national trends, suggesting that macroeconomic factors beyond the Commonwealth may be partially responsible. In addition, there was evidence that group purchasers were selecting insurance packages with fewer benefits or higher cost sharing requirements, a phenomenon known as "benefit buy-down." Buy-down can result in lower observed premiums, but may reduce access to care or increase out-of-pocket expenditures.

From 2008 to 2010, premiums increased for the small, mid-size and large groups, according to data collected by the Division of Health Care Finance and Policy (HCFP). Overall, premiums grew 7.5 percent in the commercial market, and large groups had the highest unadjusted premium dollar values but the lowest growth rates when adjusted for all factors.⁶⁷ Over the same two-year period, the total

⁶² The Rand Corporation. *Controlling Health Care Spending in Massachusetts: An Analysis of Options*. 2009. Available at: http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR733.pdf. Accessed on: Sep. 3, 2012.

⁶³ Centers for Medicare and Medicaid Services. Health Expenditures by State of Residence, 1991-2009. Available at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-

Reports/NationalHealthExpendData/Downloads/res-tables.pdf. Accessed on: Sep. 6, 2012.

⁶⁴ Blue Cross Blue Shield Foundation of MA. *Health Care Costs and Spending in Massachusetts: A Review of the Evidence*. Available at: http://bluecrossmafoundation.org/Policy-and-Research/Reports-By-Topic/Health-Care-Costs-and-Affordability/Cost-Deck.aspx. Accessed on: Aug. 30, 2012.

⁶⁵ The Urban Institute. *Health Reform in Massachusetts as of Fall 2010*. Available at: http://bluecrossmafoundation.org/~/media/Files/Publications/Policy%20Publications/MHRS%20Report%20Jan2012.pdf. Accessed on: Aug 30, 2012.

⁶⁶ The Commonwealth Fund, *State Trends in Premiums and Deductibles, 2003–2010: The Need for Action to Address Rising Costs.* November 2011. Available at:

http://www.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2011/Nov/State%20Trends/1561 Schoen state trends premiums deductibles 2003 2010.pdf, Accessed on: Feb. 8, 2012.

Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Premiums and Expenditures.* Available at: http://www.mass.gov/eohhs/docs/dhcfp/cost-trend-docs/cost-trends-docs-2012/premiums-and-expenditures.pdf. Accessed on: Aug. 31, 2012.



unadjusted premium growth rates were 6.2 percent for small groups, 9.2 percent for mid-size groups, and 7.0 percent for large groups.

A recent study demonstrated how the escalating costs of health insurance threaten the economic health of Massachusetts businesses and workers. This study estimated that Massachusetts employers spent \$18.1 billion on health insurance in 2010. If health care costs continue to grow at the projected rate of 6 percent per year, that amount will rise to \$33.1 billion a year by 2019.⁶⁸

Cognizant of the negative impact of rate increases on businesses and consumers, the state has acted aggressively to curtail unreasonable premium increases, particularly in the small group market. Chapter 288 provided relief for small businesses by implementing steps to mitigate the volatility in small groups' premium rate increases. Prior to the law taking effect, roughly 40 percent of members in the small group market renewing in the first quarter of 2010 received quoted rate increases of 25 percent or more. By fourth quarter 2011, only 2 percent of small group members received a quoted rate increase of 25 percent or more.⁶⁹

The state has also required carriers to operate efficiently, as measured by the medical loss ratio, or the percentage of premium that is used to pay claims. The medical loss ratio calculated across all insured market sectors was 89.8 percent in 2010, well above the levels required by the Affordable Care Act. 70

The Commonwealth carefully monitors and investigates cost trends in the market. For example, HCFP reports on Health Status Adjusted Total Medical Expenses (TME), relative prices, and premium trends. The Attorney General is authorized by Chapter 305 of the Acts of 2008 to review and analyze the reasons why health care costs continue to increase faster than general inflation. These detailed cost trends reports can be found on the state's website. 71,72

These studies have found significant variation in prices paid by insurers to providers. In its 2011 report, HCFP found that prices paid for the same hospital inpatient services and for physician and professional services vary significantly for every service examined. There was at least a three-fold difference for

⁶⁸ Blue Cross Blue Shield Foundation. *Benefits of Slower Health Care Cost Growth for Massachusetts Employees and Employers*. Available at: http://bluecrossmafoundation.org/Policy-and-Research/Reports-By-Topic/Health-Care-Costs-and-Affordability/Gruber-Workforce.aspx. Accessed on: Aug. 31, 2012.

⁶⁹ Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Premiums and Expenditures*. May 2012. Available at: http://www.mass.gov/eohhs/docs/dhcfp/cost-trend-docs/cost-trends-docs-2012/premiums-and-expenditures.pdf. Accessed on: Aug. 31, 2012.

⁷⁰ Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Premiums and Expenditures*. May 2012. Available at: http://www.mass.gov/eohhs/docs/dhcfp/cost-trend-docs/cost-trends-docs-2012/premiums-and-expenditures.pdf. Accessed on: Aug. 31, 2012.

Executive Office of Health and Human Services. 2012 Health Care Cost Trends. Available at: http://www.mass.gov/eohhs/researcher/physical-health/health-care-delivery/health-care-cost-trends/. Accessed on: Sep. 4, 2012.

⁷² Office of Attorney General Martha Coakley. *Examination of Health Care Cost Trends and Cost Drivers*. Available at: http://www.mass.gov/ago/docs/healthcare/2011-hcctd-full.pdf. Accessed on: Sep. 4, 2012.



every service and for most, a variation of six or seven-fold.⁷³ HCFP also reports on total medical expenditures by payer and by physician group. From 2008-2010, HCFP reported that claims expenditures continued to grow faster than inflation, and that there was significant variation in TME by physician group.⁷⁴

Similarly, the Attorney General's 2011 report found that the difference in prices each major health insurer pays to its lowest paid physician groups versus its highest paid physician groups exceeds 145 percent, and for two health insurers, exceeds 230 percent. Similarly, the difference in payments made to the lowest paid versus highest paid hospital in each major health insurer's network exceeds 170 percent, and for two health insurers, exceeds 300 percent. Global budgets negotiated by insurers also varied widely, with the health adjusted per member per month budget varying by \$200 for providers in the same health insurer's network. ⁷⁵

These studies have helped the Commonwealth to understand the factors that influence rising health care costs and have informed the development of comprehensive legislation to contain costs.

State government is also directly affected by the rising costs of health care. The state pays for health care through three major programs: MassHealth, the Group Insurance Commission (the state employees' and retirees' health insurance program), and Commonwealth Care.

MassHealth pays for health care for certain low and medium-income people in Massachusetts. With the recent economic downturn and the expansion of MassHealth enrollment, MassHealth spending in the program has increased annually. As a proportion of the state budget, MassHealth has increased from 27 percent in 2005 to 30 percent in 2010. However, expenditures per member have increased an average of just 1.1 percent per year for MassHealth, compared to over 5.5 percent for private insurance. ⁷⁶

The mission of the Group Insurance Commission (GIC) is to provide high-value health insurance and other benefits to state and certain state authorities' employees, retirees, and their survivors and dependents. The GIC also provides health-only benefits to participating municipalities. The agency works with vendors selected through competitive bidding to offer cost-effective services through

⁷³ Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Price Variations in Health Care Services*. Available at: http://www.mass.gov/eohhs/researcher/physical-health/health-care-delivery/health-care-cost-trends/health-care-cost-trends-preliminary-reports/price-variation-in-massachusetts-health-care.html. Accessed on: Aug. 30, 2012.

⁷⁴ Massachusetts Division of Health Care Finance and Policy. *Massachusetts Health Care Cost Trends: Premiums and Expenditures*. May 2012. Available at: http://www.mass.gov/eohhs/docs/dhcfp/cost-trend-docs/cost-trends-docs-2012/premiums-and-expenditures.pdf. Accessed on: Aug. 31, 2012.

⁷⁵ Office of Attorney General Martha Coakley. *Examination of Health Care Cost Trends and Cost Drivers*. Available at: http://www.mass.gov/ago/docs/healthcare/2011-hcctd-full.pdf. Accessed on: Sep. 4, 2012.

⁷⁶ Massachusetts Medicaid Policy Institute. *Stabilizing MassHealth Funding: Options to Break the Recurring Cycle of Expansion and Contraction*. Available at:

http://www.massmedicaid.org/~/media/MMPI/Files/Stabilizing%20MassHealth%20report%20Feb2012v5.pdf. Accessed on: Aug. 30, 2012.



careful plan design and rigorous ongoing management. The agency's performance goals are providing affordable, high quality benefits and, as the largest employer purchaser of health insurance in the Commonwealth, using that position to drive improvements in the health care system. The GIC has managed to keep cost growth below that of the general market, with a 2.9 percent increase from FY2011 to FY2012.

The Commonwealth Care program was created by the state's 2006 health reform law. The Commonwealth Care program provides subsidized insurance coverage to low-income adults, with incomes up to 300 percent of the federal poverty level (FPL), that do not have access to other health insurance. The coverage is provided through managed care organizations, which are contracted by the Health Connector. Through competitive procurements, Commonwealth Care has been able to offer quality, affordable health insurance coverage to approximately 190,000 adult residents at an average annual premium trend of less than two percent, considerably lower than trends seen in commercial health insurance. The FY2013 Commonwealth Care procurement, for example, is projected to achieve a net five percent *decrease* in aggregate rates paid to health plans--for the second year in a row—and without reducing benefits or increasing member copayments.

In addition to private and state payers, Medicare is a significant payer of health care in Massachusetts. In 2009, there were just over 1 million Medicare beneficiaries in Massachusetts. Medicare expenditures for Massachusetts residents were \$11.7 billion, which equates to \$11,277 per enrollee, which is higher than the national average of \$10,365. Annual growth in spending from 1991 to 2009 was 7 percent.⁷⁷

While the state has taken important steps to curtail health care costs, containing costs while maintaining quality and access will be an essential step for the long-term health of Massachusetts and its economy.

3.3 Health Care Quality

Quality is an important dimension of measuring health system performance. Quality of health care encompasses not only whether patients receive care that is safe and effective, but also whether physicians communicate well with patients and coordinate care effectively when patients transition from one place of care to another. Across the U.S., there is increasing evidence that quality of care is variable and often significantly lower than what it could be.⁷⁸

Providing high-quality health care to all patients is an important priority of the state. The state has engaged in a number of measures to promote health care quality. For example, the Health Care Quality

⁷⁷ Kaiser Family Foundation. *State Health Facts: Massachusetts – Medicare*. Available at: http://www.statehealthfacts.org/profileind.jsp?ind=290&cat=6&rgn=23. Accessed on: Sep. 3, 2012.

⁷⁸ The Commonwealth Fund. Why Not the Best? Results from the National Scorecard on U.S. Health System Performance, 2011. Available at: http://www.commonwealthfund.org/Publications/Fund-Reports/2011/Oct/Why-Not-the-Best-2011.aspx. Accessed on: Sep. 11, 2012.



and Cost Council developed a website, MyHealthCareOptions (http://hcqcc.hcf.state.ma.us/), which provides consumers with cost and quality information for hospitals and medical groups in the state. The quality information on this website for hospitals includes accreditation status, influenza vaccination rates, patient safety measures, serious reportable events, and surgical care quality measures. The Health Care Quality and Cost Council also established quality improvement priorities for the state, including eliminating hospital-associated infections, eliminating serious reportable events and "never" events, reducing readmission rates and avoidable hospitalizations, and developing useful measurements of quality in areas where current data are inadequate.⁷⁹

The Massachusetts Health Quality Partnership also reports on measures of quality across the state. Their 2011 Clinical Quality Report found that Massachusetts physicians excel, performing above the national average on 23 of 24 process measures and on all six outcomes measures. The state as a whole falls below the national average on only one measure, which was "Use of Appropriate Medications for People with Asthma Ages 12 to 50" (MA score: 89 percent; national average: 92 percent). Payers in Massachusetts are actively engaged in quality measurement. For example, MassHealth collects the following quality measures:

- Healthcare Effectiveness Data and Information Set (HEDIS): MassHealth has conducted HEDIS measurement since 1997 and since 2001 has collaborated with the University of Massachusetts Medical School (UMMS) to accomplish the annual assessment of the performance of MassHealth managed care plans based on selected HEDIS measures. The slate of HEDIS measures rotates biennially and typically includes nine to twelve measures. The UMMS MassHealth Quality office receives data from each of the MassHealth managed care plans and produces a summary report with benchmarks that is posted on the MassHealth website (http://www.mass.gov/eohhs/researcher/insurance/masshealth-annual-reports.html).
- Patient Experience Survey: In partnership with the Massachusetts Health Quality Partners, MassHealth conducts a patient experience survey approximately every two years. The last two surveys were at the practice-level with the most recent survey in 2012 using the CAHPS-CG® questionnaire and the medical home supplemental questions.
- Clinical Topic Reviews (CTR): Since 1999, MassHealth has periodically asked UMMS to conduct focused studies on specific clinical topics, usually doing a "look-behind" at HEDIS results. CTR topics have included pre-natal care, childhood immunization, depression in the community and childhood behavioral health screening.
- Hospital Pay-for-Performance (P4P) Program: The MassHealth Hospital P4P Program was
 established in 2006 as part of the landmark Massachusetts health reform legislation. The P4P
 Program seeks to reward hospitals for achieving quality and performance standards, including
 reducing racial and ethnic health disparities. Each year, the Acute Hospital Request for

⁷⁹ Massachusetts Health Care Quality and Cost Council. *Annual Report, 2008*. Available at: http://www.mass.gov/hqcc/docs/annual-report.pdf. Accessed on: Sep. 11, 2012.

⁸⁰ Massachusetts Health Quality Partners. *Clinical Quality Report 2011 HEDIS Results for Performance Year 2010.* Available at: http://c354275.r75.cf1.rackcdn.com/MHQP%20Clinical%20Quality%20Report%202011.pdf. Accessed on: Sep. 6, 2012.



Applications (RFA) outlines the terms and conditions for earning P4P payments. The set of P4P measures is reviewed annually for continued relevance and usefulness.

- Nursing Facility Pay-for-Performance (P4P) Program: The Nursing Facility (NF) P4P program rewards nursing facilities for improving the quality of care delivered to residents. In FY12, the program encouraged nursing facilities to focus quality improvement efforts on a consistent staff assignment model of care.
- MassHealth Data Warehouse: MassHealth maintains a robust Data Warehouse with enrollment, eligibility, claims, encounter, payment, member demographics, patient characteristics, patient discharge, and other data that support the MassHealth service delivery and payment systems.

The Massachusetts Department of Public Health is also actively engaged in quality measurement as well as programs to improve the quality of care.

MDPH Bureau of Health Care Safety & Quality: The MDPH Bureau of Health Care Safety & Quality oversees facility licensure and inspection including hospitals, long term care facilities, clinics, hospice programs, emergency medical services, health professionals, and out-of-hospital dialysis units. It also collects data on serious reportable events and metrics related to the facilities it licenses, such as hospitals. The Bureau leads quality improvement and measurement programs across the continuum of care, and engages in activities supporting a diverse array of sister agencies.

MDPH Massachusetts Community Health Information Profiles (MassCHIP): MassCHIP is a webenabled health data query system developed by the Massachusetts Department of Public Health, and distributed publicly as a free good since 1997. MassCHIP contains 39 major data sets, including vital statistics (births, deaths, infant deaths, linked birth-infant death), cancer registry, hospitalizations, emergency department visits, outpatient observation stays, admissions to MDPH-funded substance abuse treatment facilities, the Behavioral Risk Factor Surveillance System, Women, Infants and Children (WIC) beneficiaries, and Temporary Aid to Needy Families (TANF) beneficiaries.

Outcome and Assessment Information Set (OASIS): The OASIS data are used to calculate the Home Health Quality Measures (both outcome and process measures). OASIS is a group of data elements that represent core items that are included in a comprehensive assessment for each adult home care patient. These core items and the larger comprehensive assessment serve as the basis for the development of the plan of care and ongoing management of the patients. The OASIS also forms the basis for measuring patient outcomes for purposes of outcome-based quality improvement (OBQI) and agency adherence to best practices for process-based quality improvement (PBQI). OASIS is a key component of Medicare's partnership with the home care industry to foster and monitor improved home health care outcomes.

The Group Insurance Commission is on the forefront of raising awareness about differences in provider quality and costs. With the GIC's Clinical Performance Improvement (CPI) Initiative, which began in 2004, members receive an incentive, through lower copays, to see physicians with the highest quality



and/or cost-efficiency scores. The GIC recently adopted the upgraded version of software used for evaluating physicians' performance, improving the physician scoring process.

Private payers also actively collect quality measures. For example, providers participating in Blue Cross Blue Shield's Alternative Quality Contract can be rewarded up to 10 percent of their global budget for meeting a set of 64 quality measures. A recent Health Affairs article reviewed the performance of the Alternative Quality Contract in terms of both cost containment and quality. ⁸¹ Overall, participation in the contract over two years was associated with savings of 2.8 percent (1.9 percent in year 1 and 3.3 percent in year 2) compared to spending in nonparticipating groups. Savings were accounted for by lower prices achieved through shifting procedures, imaging, and tests to facilities with lower fees, as well as reduced utilization among some groups. Quality of care also improved compared to control organizations, with chronic care management, adult preventive care, and pediatric care within the contracting groups improving more in year 2 than in year 1. More than 1,600 primary care physicians and 3,200 specialists participate in the Alternative Quality Contract.

In recognition of the need to align quality measures across payers, Massachusetts has created a Statewide Quality Advisory Committee (SQAC). The goal of the SQAC is to define a standard list of healthcare quality measures that all Massachusetts providers report annually and that insurance companies can use to evaluate provider quality and create tiered products. Currently, providers submit a wide variety of quality measures to different government, trade and improvement agencies, with little to no standardization between these organizations. By creating a Standard Quality Measure Set (SQMS) for the state, the SQAC may be able to reduce provider reporting burden, ensure that the strongest quality measures are in use, and give consumers the confidence to compare provider quality from public sources.

The SQAC was established by Chapter 288, Section 54 of the Acts of 2010, as amended by Chapter 359 of the Acts of 2010. Its members represent government agencies, hospitals, medical associations, the Group Insurance Commission, employer associations, medical groups, health plans and consumer groups. The Committee members use their expertise to evaluate the measures that are statutorily mandated for inclusion in the SQMS and nominate additional quality members for consideration. SQAC members' ultimate responsibility is to vote on individual measures to include or exclude in the SQMS. To be included, quality measures must meet a minimum threshold of practicality and validity, and meet at least one of the Committee's priority areas. In 2012, these areas included community and population health, behavioral health, and care coordination and care transitions.

Another innovative quality initiative in Massachusetts is the Massachusetts Child Health Quality Coalition (CHQC). CHQC is an innovative public-private partnership focused on improving and sustaining health quality across the continuum of care for children in Massachusetts. This broad-based, multi-stakeholder coalition is funded by the five-year CMS CHIPRA Quality Demonstration grant awarded to Massachusetts

⁸¹ Song, Z; Safran, D; Landon, B; Landrum, MB; et al."The Alternative Quality Contract Based on Global Budget, Lowered Medical Spending and Improved Quality." *Health Affairs*. (August 2012). 31(8): 1185-1894.



in February 2010 and is envisioned as a sustainable body championing and advocating for child health care quality and measurement across the state.

The Massachusetts CHQC identified a list of 21 priority gap areas in the pediatric health quality landscape in Massachusetts as its first step in facilitating a shared understanding of priorities across the broad range of stakeholders represented. The list was narrowed down to the following three focus areas for initial Coalition action:

- 1: Promoting effective communication and coordination of care for children (initial broad framing, but adding special focus on children with behavioral health needs).
- 2: Promoting use of the most clinically appropriate site of care, with an initial focus on reducing potentially preventable/PCP-treatable pediatric emergency department use.
- 3: Building capacity and capability to measure the quality of child health care services and outcomes while addressing the cost of care

The Coalition draws on the expertise of over 60 senior leaders representing all stakeholders relevant to measuring and improving child health care in Massachusetts and includes parents and family advocates, primary care providers, specialists, hospitals, health plans, health professional groups, state and local agencies, community organizations, and policy experts.

4. The Health Care Delivery System

4.1 Health Care Infrastructure

The Massachusetts health care system is characterized by a high number of highly specialized medical personnel and the strong presence of academic medical centers. Massachusetts has the highest physician to population ratio in the nation and a higher proportion of specialists than in any other state even after controlling for interns, residents, fellows, and researchers. Altogether, the health care industry employs over 330,000 workers and accounts for 10.7 percent of the total employment in the state. ⁸²

Massachusetts has 79 hospitals.⁸³ Despite the high number of hospitals, the state has 2.4 hospital beds per 1,000 people which is slightly lower the national average of 2.6 beds per 1,000 people.⁸⁴

The state has six academic medical centers, and a large proportion of services in Massachusetts are provided in academic medical settings. ⁸⁵ In 2006, about 46 percent of licensed hospital beds in

⁸² Kaiser State Health Facts. Massachusetts: Health Care Employment as Percentage of Total Employment, 2011, and Total Health Care Employment, 2011. Available at: http://www.statehealthfacts.org/profileglance.jsp?rgn=23#. Accessed on: Sep. 6, 2012).

⁸³ The statistics for the number of hospitals and hospital beds do not include federal hospitals, long term care hospitals, psychiatric hospitals, institutions for the mentally retarded, and alcoholism and other chemical dependency hospitals.

⁸⁴ The Kaiser Family Foundation: State Health Facts. *Massachusetts: Providers & Service Use*. Available at: http://www.statehealthfacts.org/profileind.jsp?cat=8&rgn=23. Accessed on: Sep. 6, 2012.



Massachusetts were in academic medical centers, compared to 19 percent nationally. ⁸⁶ The influence of academic medicine continues to expand throughout Massachusetts as Boston academic medical centers build outpatient facilities in the suburbs. Greater inpatient and outpatient use in academic medical centers has implications for health care costs, as academic medical centers charge higher prices relative to community hospitals.

Massachusetts has more than twice as many medical residents per capita compared to the U.S. average, with 90 percent of these residents located in hospitals in the greater Boston area. Academic medical centers contribute significantly to the state economy. In 2007, per capita economic activity contributed by academic medicine in Massachusetts totaled \$4,522. Furthermore, Massachusetts receives more NIH funding per capita than the rest of the U.S.—at nearly \$350 per capita compared to less than \$70 per capita nationally—in large part through the research activities of academic medical centers.⁸⁷

Despite the relative abundance of hospitals and health care facilities, these facilities are not evenly distributed across the state (Figures 2 and 3).

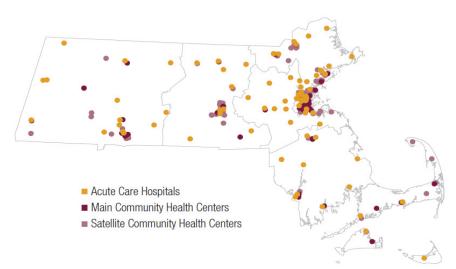


Figure 2. Acute Care Hospitals and Community Health Centers

Source: MDPH Office of Emergency Services, July 2009. Massachusetts League of Community Health Centers, MassGIS, April 2006.

http://www.mass.gov/eohhs/docs/dhcfp/r/cost-trends-files/part1-system-in-context.doc. Accessed on: Sep. 6, 2012

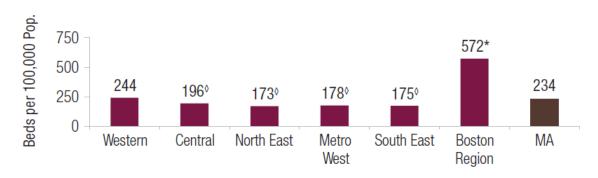
⁸⁵ Massachusetts Office of the Attorney General. *Examination of Health Care Cost Trends and Cost Driver: Report for Annual Public Hearing June 2011.* Available at: http://www.mass.gov/ago/docs/healthcare/2011-hcctd-full.pdf. Accessed on: Sep. 6, 2012.

⁸⁶ Wallack SS, Thomas CP, Flieger SP, Altman SH. *Massachusetts Health Care Costs Trends Part I: The Massachusetts Health Care System in Context: Costs, Structures, and Methods Used by Private Insurers to Pay Providers*. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/cost-trends-files/part1-system-in-context.doc. Accessed on: Sep. 6, 2012.

⁸⁷ Wallack SS, Thomas CP, Flieger SP, Altman SH. *Massachusetts Health Care Costs Trends Part I: The Massachusetts Health Care System in Context: Costs, Structures, and Methods Used by Private Insurers to Pay Providers*. Available at:



Figure 3. Acute Care Hospital Beds



Sources: MDPH Division of Health Care Quality, 2008; US Census 2007 population estimates for MA. *Statistically higher than state rate ($p \le 0.05$). *Statistically lower than state rate ($p \le 0.05$).

As of May 2012, the state had 28,580 active physicians of which 45.1 percent (12,881) were primary care physicians (PCPs) and 54.9 percent (15,699) were specialists. Most PCPs in the state are in the field of internal medicine (59 percent) followed by pediatrics (20 percent), family medicine and general practice (12 percent), and obstetrics and gynecology (9 percent).⁸⁸

Massachusetts has 405 active physicians per 100,000 population.⁸⁹ Massachusetts has the highest physician to population ratio in the nation and a higher proportion of specialists than in any other state even after controlling for interns, residents, fellows, and researchers.⁹⁰

While Massachusetts has more physicians per capita than any other state, the distribution of physicians is also not equal across the state, with most physicians in the Boston area (Figures 4 and 5).

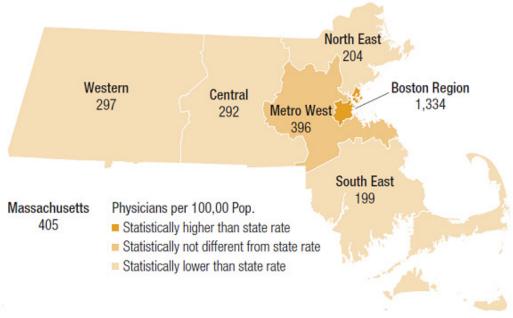
⁸⁸ Kaiser State Health Facts. Massachusetts: Physicians. Available at: http://www.statehealthfacts.org/profileind.jsp?cat=8&sub=100&rgn=23. Accessed on: Sep. 11, 2012.

⁸⁹ Division of Health Care Finance and Policy. Primary Care in Massachusetts: An Overview of Trends and Opportunities. July 2010. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/pubs/10/primary-care-report-in-massachusetts.ppt. Accessed on: Sep. 11, 2012.

⁹⁰ Wallack SS, Thomas CP, Flieger SP, Altman SH. *Massachusetts Health Care Costs Trends Part I: The Massachusetts Health Care System in Context: Costs, Structures, and Methods Used by Private Insurers to Pay Providers*. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/cost-trends-files/part1-system-in-context.doc. Accessed on: Sep. 6, 2012.

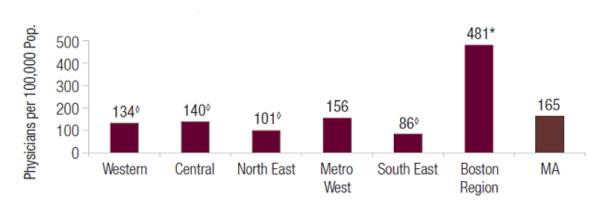


Figure 4. Physicians (per 100,000 population)



Source: Massachusetts Board of Registration in Medicine, July 2009

Figure 5. Primary Care Physicians (per 100,000 population)



Source: Massachusetts Board of Registration in Medicine, July 2009.

*Statistically higher than state rate (p \leq 0.05). Obstatistically lower than state rate (p \leq 0.05).



Despite the high numbers of physicians, primary care access is an important concern. A 2011 survey of 838 state doctors, conducted by the Massachusetts Medical Society, found that patients can wait as long as 48 days to receive a non-urgent appointment with a PCP or specialist. Wait times varied based on specialty, with the shortest wait time for a well-visit at 24 days for pediatricians and the longest wait time at 48 days for an internist. Wait times were down slightly from 53 days from the same survey conducted in 2010.⁹¹

In general, utilization of health care services in Massachusetts is high. In 2010, MA had 126 hospital admissions per 1,000 people which was higher than the US average of 114 admissions per 1,000 people. The state had 635 hospital inpatient days per 1,000 people which was higher than the US average of 613 hospital inpatient days per 1,000 people. In the same year, MA had 481 hospital emergency room visits per 1,000 people which was higher than the US average of 411 per 1,000 people.

While Massachusetts ranks highly on health system performance overall, the state was ranked only 33rd in avoidable hospital use and costs by the Commonwealth Fund in 2009.⁹³ This low ranking was partly due to high rates of hospital admissions for ambulatory care-sensitive conditions among Medicare beneficiaries which have persisted over time. The state was also in the bottom quartile for hospital readmissions from home health settings, as well as Medicare 30-day readmissions.

The characteristics of the Massachusetts health care delivery system pose both great opportunities and challenges for transformation. Health care is an important part of the state's economy, which means that changes to the health care system must be carefully calibrated so as to sustain this key engine of economic growth. At the same time, while the state as a whole has a large number of facilities and providers, the organization and distribution of these resources is not optimal. Finally, while there have been important strides in delivery system innovation, much of the system still operates in a traditional structure of siloed practices. For example, care of mental health and substance abuse has not been well-integrated with primary care. And while there has been a growth in the number of patient-centered medical homes, with 96 now in the state, this model is far from being the dominant model of care.

4.2 Care Models for Specific Populations

Within the state, there are services tailored for specific populations. For example, through a statewide network of Elder Services providers, Elder Affairs provides services locally via Area Agencies on Aging (AAA), Aging Services Access Points (ASAP), Councils on Aging (COA) and senior centers in communities

⁹¹ Kowalczyk L. Wait for doctors visit as long as 48 days in Massachusetts. *The Boston Globe*. Available at: http://www.boston.com/news/health/blog/2011/05/wait for doctor.html. Accessed on: May 9, 2011.

⁹² Kaiser State Health Facts. Massachusetts: Providers & Service Use. Available at: http://www.statehealthfacts.org/profileind.jsp?cat=8&rgn=23. Accessed on: Sep. 6, 2012.

⁹³ McCarthy D, How SKH, Schoen C. *Aiming Higher: Results from a State Scorecard Health System Performance, 2009.* Available at: http://www.commonwealthfund.org/Content/Publications/Fund-Reports/2009/Oct/2009-State-Scorecard.aspx. Accessed on: Sep. 11, 2012.



across the Commonwealth. The network performs a wide range of functions including advocacy, planning, coordination, inter-agency linkages, information sharing, brokering, and monitoring and evaluation toward the goal of developing and enhancing comprehensive and coordinated community based systems for serving elders.

Today, Elder Affairs and the elder network direct services to nearly 46,200 elders through state funded Home Care Services and provide more than 8.8 million congregate and home-delivered meals to elders. In addition, Elder Affairs manages long-term care services provided to eligible MassHealth members of all ages that cover three main areas: Community Services, Coordinated Care Systems and Institutional, Residential, and Day Services. Elder Affairs also administers Title III and Title VII social and nutrition services under the Older Americans Act, and fulfills advocacy, planning, and policy functions on behalf of the 1.2 million elders in the Commonwealth.⁹⁴

Individuals with developmental disabilities are another population in Massachusetts with unique needs. The Massachusetts Developmental Disabilities Council estimates that there are over 150,000 people with developmental disabilities in the state. The 2010 Annual Disabilities Statistics Compendium reported that in 2009 MA had the smallest number of uninsured individuals with disabilities. Only 4.2 percent lack coverage. Nearly 96 percent (95.8) of adults with disabilities have health insurance. In 2009, 62.7 percent of people with disabilities age 18 to 64 living in the community were covered by public health insurance; 46.3 percent were covered by private health insurance. The percent of total Medicaid beneficiaries with disabilities increased 2.0 percent between 2005 and 2007. In 2007 Medicaid payments for those with "disabled" status were 42.5 percent of total Medicaid payments. In 2009 the percentage of Medicare enrollees entitled by disability was 17.2 percent, an increase of 0.2 percent from 2007.

Massachusetts maintains a number of programs to support the needs of children and adults with developmental disabilities. Massachusetts' Home and Community-Based (HCBS) Waiver services finance a number of services and supports for children and adults with developmental disabilities. The Children's Autism Spectrum disorder waiver provides supports to participants including but not exclusive to respite, behavioral supports and consultation, family training, and speech therapy. The MA Adult Supports Program services include group or center-based day supports, individual support and community habilitation, supported employment, family support navigation, and transportation. The MA Community Living Waiver provides services such as individualized home supports that assist individuals with intellectual disabilities to live in the community. The Massachusetts Adult Residential Waiver program provides similar services to the Community Living Waiver program and also offers residential habilitation, residential family training and residential peer support.

⁹⁴ Massachusetts Executive Office of Elder Affairs. State Plan on Aging: Fiscal Years 2010-2013. Available at: http://www.mass.gov/elders/docs/state-plan-on-aging.pdf. Accessed on: Sep. 6, 2012.

⁹⁵ Massachusetts Developmental Disability Council. *Five Year State Plan: For Year 2013.* Available at: http://www.mass.gov/anf/docs/mddc/ma-2013-state-plan.pdf. Accessed on: Sep. 6, 2012.



Massachusetts has also developed an integrated care model for its dual eligible population, which includes significant numbers of individuals with disabilities. In this demonstration, MassHealth and Medicare will enter into three-way contracts with Integrated Care Organizations (ICOs). ICOs will be accountable for the total care of the enrollee. Within the ICO, primary care, behavioral health, other medical, and LTSS providers will work as a team to care for the member, with support from a Care Coordinator and an Independent Living and LTSS (IL-LTSS) Coordinator. The member will play the central role in the team. Together, that team will create an individualized care plan for meeting the member's needs. This project is discussed in more detail on page 35.

There are also opportunities for better integration and coordination of behavioral health services in general. The Department of Mental Health, as the State Mental Health Authority, assures and provides access to services and supports to meet the mental health needs of individuals of all ages, enabling them to live, work, and participate in their communities. The DMH system of care emphasizes treatment, clinical services, rehabilitation, and recovery. DMH works toward reducing the need for unnecessary hospitalization and out-of-home placement by improving integration of acute diversion with community support programs, including collaboration with the Department of Children and Families (DCF), MassHealth, and MassHealth Managed Care Entities (MCEs) to assure an adequate and coordinated network of appropriate options. In 1992, the Commonwealth received one of the first waivers in the country to develop a behavioral health care carve-out program. This statewide program manages the behavioral health care program for those MassHealth recipients, including DMH clients who are also MassHealth recipients, enrolled in the Primary Care Clinician (PCC) Program. Since the carve-out was implemented, MassHealth, the Department of Mental Health, and our MCEs have worked to align all the Masshealth managed care behavioral health products. During this process, Massachusetts has embraced evidence-based programs, developed services in the community, infused the system with peers, and promoted the principles of integration and recovery

Substance abuse prevention and treatment services are overseen by the Bureau of Substance Abuse Services (BSAS), a division of the Department of Public Health (DPH). The responsibilities of BSAS include licensing programs and counselors; funding and monitoring prevention, intervention and treatment services; providing access to treatment for the indigent and uninsured; developing and implementing policies and programs; and tracking substance abuse trends in the state. DMH and BSAS collaborate on a number of initiatives related to the planning of services for people with co-occurring substance use and mental health conditions.

4.3 Initiatives to Improve Coordination of Care

To further improve coordination of care, Massachusetts has a number of programs to improve care transitions and prevent readmissions.

Community-Based Care Transitions Program

In April of 2011, the Centers for Medicare and Medicaid Services announced the Community-Based Care Transitions Program (CCTP) funding initiative, which seeks to reduce rehospitalizations by improving the discharge planning and care transition processes. Under the CCTP model, a Community-



Based Organization (CBO) takes responsibility for coordinating the entire care transition process, starting at least 24 hours before the patient is discharged. Unlike other care transition initiatives, CCTP programs are not limited to those patients who are leaving the hospital to enter a post-acute care facility. CBOs coordinating the transition must also provide transition services to those patients who are reentering home settings.

The CCTP is largely open-ended to encourage local CBOs to design and test models based on the needs of their community members. Possible services that CBOs may offer include post-discharge education specific to the patient's condition, medication review and management, and facilitating interactions between the patient and post-acute care providers. CBOs are encouraged to work directly with hospitals to improve discharge-planning services that predict and prevent care transition crises before they occur.

Massachusetts has received three CCTP grants to date. The CBOs receiving the awards include Elder Services of Berkshire County, Elder Services of the Merrimack Valley, and Elder Services of Worcester Area, which are all designated Aging Services Access Points. These CBOs all work with at least one local hospital to provide high-quality care transition services, although some CBOs work with non-hospital partners, and others work with multiple acute-care hospitals.

Interventions to Reduce Acute Care Transfers (INTERACT)

INTERACT is a quality improvement program that was designed to improve the early identification, assessment, documentation, and communication about changes in the status of residents in skilled nursing facilities. The goal of INTERACT is to improve care and reduce the frequency of potentially avoidable transfers to the acute hospital. The INTERACT program includes three types of tools for use in nursing homes: communication tools, clinical tools or care paths and advanced care planning tools. The INTERACT tools use consistent language, standardized criteria and clear guidelines to facilitate efficient and effective communication between providers.

Improving Massachusetts Post-Acute Care Transfers (IMPACT)

The goal of IMPACT is to improve patient care transitions between acute and post-acute settings by enhancing the communication between hospitals and post-acute care facilities at the time of transfer. IMPACT is currently being implemented in Worcester County, where 85 percent of the healthcare for its 800,000 person population stays within the county. The Massachusetts eHealth Institute, which oversees the project, is collaborating with the Massachusetts Department of Public Health to develop an electronic universal transfer form called a CCD+ that can be transmitted between facilities. This includes relevant health information such as medication lists, advance directives, the patient's functional status, treatment plans, and other data elements required by the next provider of care in order to seamlessly assume responsibility for the patient. The benefits of the CCD+ are myriad; standardized discharge forms help providers quickly locate health information and eliminate errors involving handwriting and misplaced forms. Providers can populate some aspects of the form with information from the patient's Electronic Health Record, reducing the possibility for transcription errors. The CCD+ also standardizes the specific data elements that must accompany a patient during



transfer, which can help ensure that all patients' key health information is available to their post-acute care providers upon arrival.

Although IMPACT focuses on the single information exchange that takes place during patient transfer, it will likely have large impacts on the broader healthcare system. Improving the quality of discharge and transfer information may help reduce unnecessary tests and procedures which will drive down costs. Avoidable emergency department visits and rehospitalizations may also be decreased.

The State Action on Avoidable Rehospitalizations (STAAR) Initiative

The State Action on Avoidable Rehospitalizations (STAAR) Initiative is designed to help states reduce avoidable rehospitalizations by 30 percent over four years by improving care transitions between acute-care hospitals and community-based services. The initiative is being piloted in Massachusetts, Michigan, Washington, and Ohio and is currently in the third year of implementation.

The STAAR Initiative seeks to improve care transitions through the implementation of two primary interventions in each participating state. The first is the creation of "Cross-Continuum Teams" that bring together hospitals, community-based care agencies such as nursing homes and community health centers that receive hospital patients post discharge, and patient representatives. These teams work to identify the factors that jeopardize smooth transitions between sites of care within their communities and collaborate to improve coordination and communication between the different organizations. The STAAR Initiative also encourages these Cross-Continuum Teams to "perform a comprehensive assessment of patients; improve patient education and provide clear and updated communication to patients and their caregivers; communicate essential information to the receiving provider at the time of discharge; and ensure timely follow-up."

The second STAAR intervention requires the creation of state-level steering committees whose job is to bring together multiple stakeholders from different sectors of the healthcare industry to focus attention on the problem of avoidable rehospitalizations and develop a strategic plan for the state. In the first year of the initiative, the state-level steering committees prioritized developing a shared understanding of the problem of rehospitalizations and cataloging the existing programs targeting the program. In subsequent years, the committees took a more active role in identifying the systemic issues—such as volume-based reimbursement structures—that influence care transitions and rehospitalizations. In the first three years of the initiative, state steering committees were able to convince many stakeholders to test small-scale policy changes in a controlled environment to determine what factors may have an impact on reducing rehospitalizations.

In addition to coordinating state and local resources to improve care transitions, the STAAR Initiative also provides technical leadership to states. This includes helping each state define rehospitalizations and identify measures that accurately capture the magnitude of the problem within the state, as well as helping hospitals calculate the direct financial impact that reducing rehospitalizations will have on their institution. STAAR technical assistance also helped states align multiple interventions targeting rehospitalizations to maximize their efficacy, such as the INTERACT protocol to improve nursing home quality in Massachusetts.



5. The Healthcare Payment System

Payments to providers for health care services can come from insurers and third party administrators, or directly from government or other payers. The way that payments are structured impacts the way that the delivery of health care services is organized. The Commonwealth has collected information on the arrangements used to pay for health care in Massachusetts.

5.1 Private Payer Arrangements

In 2009, the Division of Health Care Finance and Policy surveyed health insurers about the methods used to pay providers in their private HMO, PPO, and public (Medicare and Medicaid) products. ⁹⁶

The survey of 13 health insurers in Massachusetts indicated that:

- Fee-for-service payment methods, which offer few incentives to reduce the volume of unnecessary or inappropriate services, are the dominant method of payment in all types of plans. PPOs, which represent the majority of commercial members, reported no capitation payments (payments made per member rather than per service). HMOs used capitation to pay a small proportion of primary care providers (PCPs) and specialists - 16 percent and 5 percent, respectively.
- On average, capitation payments were used to pay a higher percentage of PCPs in the largest Medicare and Medicaid products (33 percent and 35 percent respectively) than in the largest commercial HMO products (16 percent).
- Diagnosis-related groups (DRG) and per diem payments were the most common form of payment for inpatient hospital services and reward high utilization, not outcomes. For outpatient hospital services, little financial risk was shifted to providers: discounted charges, payment per case, and payment per visit were the most common payment methods.
- Nearly half of all HMOs and half of all insurers share financial risk with one or more medical
 groups through contracts. This could include payments for bundles of services, on a per person
 basis (capitation), or fee-for-service payments alongside other types of incentives to keep costs
 under control. These types of risk contracts can, if applied to a sufficient share of payments,
 create incentives to reduce the volume of unnecessary services provided and enhance
 coordination of care.

While fee-for-service payments are the dominant form of payment, private payers in Massachusetts have developed innovative payment methodologies intended to promote quality and contain costs.

One alternative payment methodology used by private payers in Massachusetts is a global budget. These budgets are a targeted fixed amount paid to a provider organization that accounts for all of the health care needs of their selected populations. If the paid amount is more than actual costs to provide

⁹⁶ Wallack SS, Thomas CP, Flieger SP, Altman SH. *Massachusetts Health Care Costs Trends Part I: The Massachusetts Health Care System in Context: Costs, Structures, and Methods Used by Private Insurers to Pay Providers*. Available at: http://www.mass.gov/eohhs/docs/dhcfp/r/cost-trends-files/part1-system-in-context.doc. Accessed on: Sep. 6, 2012.



care, some provider organizations are allowed to keep some of the savings. These negotiated global rates vary depending on provider group. Some insurers will place caps the amount of "shared savings" that providers can keep.

For example, Blue Cross Blue Shield's Alternative Quality Contract uses a budget-based methodology, which combines a fixed per-patient payment with substantial performance incentive payments. The AQC was offered to provider organizations on an optional basis, with the first contracts effective January 2009, and is a key element of BCBSMA's overall strategy to align payment methods, performance measurement, and provider and member incentives, while increasing transparency of cost and quality information.

Another payer, Tufts Health Plan, has a Coordinated Care Model that is designed to change behavior and economic incentives. The program offers technologically advanced medical management and health promotion to encourage healthier behavior, guides health plan members in seeking higher-value yet lower-cost treatment, and financially rewards clinicians for providing efficient, high-quality care.

5.2 Medicare

In addition to private insurers and payers, public payers in Massachusetts significantly influence both health care payment and delivery. Medicare pays for care for over 1 million people in Massachusetts. Eighty-two percent (82.8) of Part A and/or Part B beneficiaries qualify on the basis of age, and 17.2 percent on the basis of disability. Medicare has traditionally paid providers on a fee-for-service basis. In Massachusetts, most Medicare enrollees are covered through fee-for-service, with just 18.2 percent covered by Medicare Advantage. 98

Innovations in Medicare's payment system have significant influence on the Massachusetts health care system. Massachusetts provider groups have been working closely with Medicare to assure the successful implementation of alternative payment methodologies on a national scale. Two recent programs—the Medicare Shared Savings Program and the Pioneer Accountable Care Organization (ACO) Model—have been particularly important.

Through the Medicare Shared Savings Program established under the Affordable Care Act, provider groups can become accountable care organizations by choosing a "one-sided" model in which a group shares savings with Medicare if the group's spending is below its pre-specified target. Provider groups can also choose a "two-sided" model in which they share savings but also assume risk for excess spending over their targets. Both models reward providers for meeting quality benchmarks.

⁹⁷ Kaiser State Health Facts. Massachusetts: Distribution of Medicare Beneficiaries by Eligibility Category, 2009. Available at: http://www.statehealthfacts.org/profileind.jsp?ind=293&cat=6&rgn=23. Accessed on: Sep. 11, 2012.

⁹⁸ Kaiser Family Foundation analysis of the CMS State/County Market Penetration file, released in March 2011. Available at: http://healthplantracker.kff.org/topicresults.jsp?i=8&rt=2. Accessed on: Sep. 11, 2012.



The goals of the Medicare Shared Savings Program are to improve care coordination between providers and reduce unnecessary costs for traditional fee-for-service beneficiaries. The program is different from the Pioneer ACO Model initiative in that it contains a lower level of shared savings and risks for participating organizations. Eligible providers, hospitals, and suppliers may participate in the Shared Savings Program by creating or participating in an Accountable Care Organization. Massachusetts has four organizations participating in the Medicare Shared Savings Program: Jordan Community ACO, Physicians of Cape Cod ACO, Circle Health Alliance, LLC, and Harbor Medical Associates.

Massachusetts is also home to five of the 32 provider organizations that are participating in the Medicare Pioneer ACO Model program. Medicare's Pioneer ACO Model program includes payment models with generally higher levels of shared savings and risk for Pioneer ACOs than levels currently proposed in the Medicare Shared Savings Program. The Pioneer ACO model tests shared savings and shared loss payment arrangements for two performance years. Organizations that show savings in the first two performance years are eligible in year three to move to a monthly population-based payment. State participants in the Pioneer ACO program include Beth Israel Deaconess Physician Organization, Atrius Health, Mount Auburn Cambridge Independent Practice Association, Partners Healthcare, and Steward Health Care system.⁹⁹

5.3 MassHealth

In terms of enrollment, MassHealth is the largest public payer in Massachusetts. MassHealth covers approximately 1.3 million people and has a budget of over \$10 billion. Massachusetts operates most of its Medicaid program through a federally approved 1115 Demonstration waiver. The MassHealth 1115 Demonstration has been an essential vehicle for state health care reforms in Massachusetts since 1997, including Massachusetts' groundbreaking 2006 reform that paved the way for near-universal health insurance coverage and significant improvements in access to affordable health care.

MassHealth provides health care benefits to eligible individuals and families through the number of different programs, described in more detail in Appendix 2.

In the MassHealth programs, benefits provided through direct coverage are delivered both on a fee for service and capitated basis under the demonstration. MassHealth may require members eligible for direct coverage under Standard, Family Assistance, CommonHealth, Basic and Essential to enroll in managed care. Most members can elect to receive services either through the statewide Primary Care Clinician (PCC) Plan or from a MassHealth-contracted managed care organization (MCO).

The MassHealth PCC Plan is a statewide Primary Care Case Management (PCCM) program administered by MassHealth, pursuant to its federally-approved MassHealth 1115 Demonstration. In the PCC Plan, members enroll with a PCC who provides most primary and preventive care and who is

⁹⁹ Center for Medicare and Medicare Innovation. *Selected Participants in the Pioneer ACO Model.* Available at: http://innovations.cms.gov/Files/x/Pioneer-ACO-Model-Selectee-Descriptions-document.pdf. Accessed on: Sep. 6, 2012.



responsible for providing referrals for most specialty services. The state offers enhanced primary care clinician payments. These are enhanced fee-for-service rate payments or capitated rate payments to Primary Care Clinicians for coordination of the care delivered to their enrolled PCC plan members. MassHealth is also establishing pay-for-performance incentives using capitated or other payment arrangements for achieving certain quality of care benchmarks, for demonstrating certain levels of improvement for selected Healthcare Effectiveness Data and Information Set (HEDIS) or other quality indicators, and for implementing practice infrastructure designed to support the delivery of high quality health care services to enrolled members.

MassHealth contracts with Managed Care Organizations (MCOs) that provide comprehensive health coverage including behavioral health services to enrollees. MassHealth is expanding value-based purchasing strategies for MCOs and envisions expanding this initiative to include global payments by MCOs to integrated care organizations and other integrated providers and transitioning primary care provider payment methodologies into alignment with Patient-Centered Medical Homes.

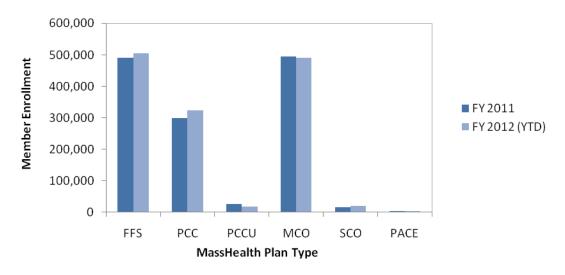
For state seniors enrolled in Medicaid, Senior Care Options (SCO) is a comprehensive health plan that covers all of the services reimbursable under Medicare and MassHealth through a senior care organization and its network of providers. The SCO program was created to offer seniors aged 65 or older the opportunity to receive quality health care that combines health services with social support services. By coordinating care and specialized geriatric support services, along with respite care for families and caregivers, SCO offers an important advantage for eligible members over traditional feefor-service care.

In addition, MassHealth offers a Program of All-inclusive Care for the Elderly (PACE). PACE is a fully capitated Medicare and Medicaid managed care program authorized under federal regulation and managed jointly by MassHealth and the Centers for Medicare & Medicaid Services (CMS). For a MassHealth member to be eligible to apply for enrollment in the PACE program, the member must be aged 55 or over, reside in a geographical area served by a PACE provider, and be enrolled in MassHealth Standard.

MassHealth enrollment by Plan Type is shown in Figure 6.



Figure 6. MassHealth Enrollment by Plan Type



Plan types are as follows: Fee for Service (FFS), Primary Care Clinician Plan (PCC), Fee for Service with managed behavioral health (PCCU), Managed Care Organization (MCO), Senior Care Organization (SCO), and Program of All-inclusive Care for the Elderly (PACE).

Most MassHealth members are non-disabled children and adults (39 percent and 22 percent, respectively). Disabled adults and children comprise 20 percent of MassHealth members, and seniors make up another 11 percent; while these groups represent a smaller overall percentage of MassHealth enrollment, they account for nearly two-thirds of the program's spending. The program covers two-thirds of residents in nursing facilities, more than half of children in low-income families, and more than half of people with disabilities in the state. A breakdown of the demographic characteristics of member by MassHealth plan type can be found in Table 1 below.

Table 1. Demographic Characteristics by MassHealth Plan Type (FY2012)

Mass Health Plan	Number of Members	%Female	%Disabled	%0-18 yrs	%19-64 yrs	%65+ yrs	Percent of MassHealth Population
FFS	509,000	57%	33%	25%	49%	26%	37%
МСО	492,000	57%	11%	57%	43%	<1%	36%
PACE	3,000	69%	22%	N/A	13%	87%	0%
PCC	321,000	50%	22%	42%	58%	N/A	24%
PCCU	17,000	46%	5%	82%	18%	N/A	1%
SCO	20,000	46%	32%	<1%	<1%	99%	1%
Total	1,362,000	55%	22%	41%	48%	11%	100%

¹⁰⁰ Massachusetts Medicaid Policy Institute. *MassHealth: The Basics Facts, Trends, and National Context*. Available at: http://www.massmedicaid.org/~/media/MMPI/Files/PDF%20National%20comparisons%20chartpack%20june%202012.pdf. Accessed on: Sep. 6, 2012.



MassHealth is implementing or planning a number of innovative projects and initiatives that will drive payment and delivery system reform. These include a demonstration to integrate care for dual eligible individuals; procurement of primary care and behavioral health care management services; incentive payments to safety net hospitals to support Delivery System Transformation Initiatives; a Pediatric Asthma Bundled Payment Pilot; the Patient Centered Medical Home Initiative; and Primary Care Payment Reform.

Demonstration to Integrate Care for Dual Eligible Individuals

MassHealth is developing a new program to integrate care for 111,000 individuals ages 21-64 who are eligible for both Medicare and Medicaid ("dual eligibles"). Currently, older dual eligible individuals have access to an integrated model through the Senior Care Options (SCO) program and the Program of All-Inclusive Care for the Elderly (PACE), but no integrated care option is available today for most dual eligibles under age 65. Under a Demonstration with the federal government, MassHealth is proposing to create an integrated option for dual eligibles with full MassHealth and Medicare benefits, ages 21-64. Coverage is anticipated to being in April 2013.

MassHealth and Medicare Benefits, Plus Additional Services

In this Demonstration, MassHealth and Medicare will enter into three-way contracts with Integrated Care Organizations (ICOs). ICOs will be accountable for the total care of the enrollee. ICOs will provide all Medicare and MassHealth Standard fee-for-service services¹⁰¹ and some benefits that are not currently covered by either program, including diversionary behavioral health services and additional community support services. These additional services are thought to be critical to this population, provide alternatives to more expensive care, and therefore add considerable value to the Demonstration for enrollees. In 2008, over two-thirds of the individuals in the target population had a behavioral health diagnosis. Forty-one percent had a chronic physical condition, 11 percent had an intellectual or developmental disability, and 31 percent used Long Term Services and Supports (LTSS), including community-based services.

Care Teams Providing Integrated, Coordinated Care

Within the ICO, primary care, behavioral health, other medical, and LTSS providers will work as a team to care for the member, with support from a Care Coordinator and an Independent Living and LTSS (IL-LTSS) Coordinator. The member will play the central role in the team. Together, that team will create an individualized care plan for meeting the member's needs. The team will use a single electronic medical record to manage communication and information flow. The team will be accessible to the member, providing flexible office hours and alternatives to face-to-face visits, such as email and telephone contact.

Protections for Members

ICOs will be required to have networks of providers that can collectively provide all services available in the Demonstration, will accept new patients, and comply with the Americans with Disabilities Act. Until the ICO does a full assessment of a member's needs, the ICO must ensure access to the member's

 $^{^{\}rm 101}\text{Certain}$ critical services provided by state agencies will not be transferred to the ICO.



same services and providers, in the same amounts and at the same payment levels. ICOs will be required to contract with community-based organizations that are expert in working with persons with disabilities to provide an IL-LTSS Coordinator who will help ensure that care planning is informed by the full range of LTSS available. Members will be able to appeal care decisions made by the ICO, and will be able to disenroll from the Demonstration without penalty at any time.

Robust Stakeholder Engagement and Support

Community organizations, advocates, and members have played a strong role in helping MassHealth design this Demonstration. MassHealth has held more than 20 open public meetings with advocates and stakeholders, and many additional member- and provider-focused meetings on the Demonstration. MassHealth also published a draft of the proposal for a 30-day comment period, held two public hearings and received more than 150 written comments. Some significant changes were made to the draft proposal based on the insights gained through the stakeholder process, and the final proposal was submitted to CMS on February 16, 2012 with more than 30 letters of support from advocacy organizations, providers, state agencies, and other stakeholders. MassHealth is committed to ongoing discussions with stakeholders as the Demonstration is implemented to ensure that it is operating as intended.

Savings from Integrated, Coordinated Care

Having ICOs accountable for the overall care and care management of enrollees will promote more rational use of services than volume-driven payments in the current fee-for-service system. Currently, the lack of alignment between Medicare and MassHealth coverage rules creates incentives for providers to shift costs by transferring patients from one service or setting to another. In addition to not serving members in the best way possible, this shifting increases both state and federal spending over time. In this Demonstration, care coordination and aligned financial incentives are expected to produce cost savings. Care coordination and integrated care management will support investments in preventive health care and incentivize investments to address issues before they escalate and require costlier interventions. For example, well-coordinated transition support will provide timely management with discharge planners when an enrollee leaves an acute facility, allowing the enrollee, when appropriate, to return home with appropriate supports instead of being admitted to a more expensive nursing facility.

Delivery System Transformation Initiatives (DSTI)

The Delivery System Transformation Initiatives (DSTI) program is a performance-based incentive payment program to support and reward safety net hospitals for investing in delivery system transformation projects that advance the triple aims of better care, better population health, and lower costs. In addition, DSTI supports safety net providers' investments in the infrastructure and capacities necessary to prepare for the transition away from fee-for-service payments toward alternative payment arrangements that hold providers accountable for the quality and cost of care. Up to \$628 million in incentives is available to seven hospital systems over three years (2012-2014). In order to earn DSTI payments, each hospital must meet the performance goals outlined in its three-year transformation plan. DSTI is jointly supported by the Commonwealth and the federal Center for Medicare and Medicaid Services (CMS).



The DSTI program was approved in December 2011 under Massachusetts' 1115 Medicaid Demonstration Waiver. In early 2012, MassHealth worked closely with CMS and participating hospitals to develop a "Master DSTI Plan" outlining a comprehensive set of transformation projects and associated performance metrics within each of four categories:

- Development of a fully integrated delivery system built on Patient-Centered Medical Home principles;
- Implementation of innovative care models to improve quality of care and health outcomes;
- Development of capabilities necessary to implement alternative payment models;
- Population-focused health outcome improvements.

Each participating hospital developed its own unique transformation plan, selecting up to seven projects from the Master DSTI Plan with proposed milestones and metrics by which hospital performance would be measured. MassHealth and CMS approved the hospital-specific plans in the spring of 2012, and hospitals received their first incentive payments in June. Hospitals will report on their progress and receive associated incentive payments on a semi-annual basis, and MassHealth will continue to work closely with the hospitals to track their progress and provide ongoing technical assistance as needed.

Participating hospitals are undertaking a wide array of transformation projects, such as transforming primary care practices to patient-centered medical homes; piloting care management programs for patients with chronic or complex conditions; redesigning discharge processes to lower readmissions; strengthening communications and EHR linkages with providers across the spectrum of care; conducting readiness assessments to become an ACO; and building IT capacity and analytics infrastructure to better track and manage quality and cost of care. Hospitals eligible to participate in the DSTI program have a particularly high Medicaid payer mix and a low commercial payer mix; eligible hospitals include Boston Medical Center, Cambridge Health Alliance, Holyoke Medical Center, Lawrence General Hospital, Mercy Medical Center, Signature Healthcare Brockton Hospital, and Steward Carney Hospital.

Pediatric Asthma Bundled Payment Pilot

The Pediatric Asthma Bundled Payment Pilot is a two-phase initiative to implement a bundled payment system for high-risk pediatric asthma patients enrolled in the MassHealth program, designed to prevent unnecessary hospital admissions and emergency room utilization. This pilot was mandated by Massachusetts state law (St.2010, Ch.131, S.154) and authorized by the Massachusetts Medicaid 1115 waiver (STC 39). This pilot is anticipated to start in 2013.

The Commonwealth's goal in establishing this pilot is to evaluate the degree to which a bundled payment and flexible use of funds enhances the effects of delivery system transformation, as demonstrated by improved health outcomes at the same or lower cost. The specific objectives of the pilot are:



- To develop a bundled payment system for MassHealth members with high-risk pediatric
 asthma enrolled in selected PCC Plan Practices that is designed to support a comprehensive
 chronic disease management approach to asthma in order to prevent the need for hospital
 admissions and emergency department visits and improve health outcomes;
- To demonstrate whether a financial return on investment can be achieved through the reduction of costs related to hospital admissions and emergency department visits in order to justify and support the sustainability and expansion of the model;
- To help pediatric providers begin developing the skills and infrastructure that they will need to manage global payments; and
- To help children and their families learn practical and actionable methods for managing asthma in the context of their lives and for optimally controlling asthma symptoms to minimize asthma's impact on their health, well-being, and quality of life.

This pilot program will be conducted in two phases. The first phase will provide a bundled per member per month payment for services not traditionally covered by MassHealth, such as home visits by community health workers and supplies for mitigating environmental asthma triggers in the home. The second phase will provide a bundled payment for all ambulatory services required for the most effective treatment and management of pediatric asthma for high-risk patients. These payment methodologies are subject to CMS approval of the pilot program protocol.

To develop the detailed protocols, MassHealth established a program design team, which includes three physicians, a nurse, a pharmacist, several policy experts, data analysts, and legal counsel. MassHealth also convened an external Advisory Committee with 20 members, each of whom has expertise in treating high-risk pediatric asthma patients, designing and implementing clinical programs to prevent and manage high-risk pediatric asthma, and/or designing and implementing global or bundled payment structures. Advisory Committee members include physicians, nurses, pharmacists, researchers, representatives of professional organizations, and health care administrators. The program design team, with input from the Advisory Committee, is developing protocols specifying the detailed plan including the benefit package, the Commonwealth's plan for purchasing and disseminating supplies, the bundled payment methodology, and the evaluation plan.

MassHealth plans to issue a Request for Responses (RFR) to procure two to six pediatric practice sites to participate in the Pilot and to enroll 100-200 members with high-risk pediatric asthma. MassHealth expects to generate savings by preventing expensive inpatient hospitalizations and emergency department visits, producing a positive return on investment within 3 years.

Patient Centered Medical Home Initiative

The Patient Centered Medical Home Initiative (PCMHI) is a three-year public-private partnership to support primary care practice transformation. PCMHI began in April 2011 with 46 competitively selected primary care practice sites from across the Commonwealth and a multi-payer group of



Massachusetts health plans working collaboratively in the three year demonstration support primary care practice transformation. The project concludes in April 2014.

The overall goals include:

- Support primary care practices in the transition to a patient centered medical home model of care in anticipation of alternative payment arrangements that reward high quality, efficient and integrated care
- Conduct an evaluation of the transformation's impact on quality and health expenditures at the completion of the three year demonstration

The key objectives for practice participation include:

- Establish Care Teams to learn and implement PCMH concepts
- Participate in all Learning Collaboratives
- Attend in-person learning sessions, webinars, and conference calls
- Establish and maintain patient registries
- Apply for and achieve NCQA Recognition as a medical home that meets certain standards
- Provide Clinical Care Management to chronically ill and high-risk patients
- Provide Care Coordination services to all patients
- Report monthly on a set of clinical and process measures

The 46 participating practices care for adults and pediatric patients. The size and demographics of the practices range from single practice providers to large multi-site practices in urban, suburban and regional areas of the state. There are 178,000 patients in the demonstration. Private payers participate in supporting the model, and the participating health plans include some of the largest plans in Massachusetts including BCBSMA, Harvard Pilgrim, Tufts Health Plan, Health New England, and Fallon Health. Three MassHealth managed care plans also participate.

MassHealth Procurement of Care Management services for PCC Plan Enrollees

The largest enrollment in any single managed care plan for MassHealth members is the Primary Care Clinician (PCC) Plan which has approximately 400,000 members. The behavioral health services for these members are managed by an outside vendor, Massachusetts Behavioral Health Partnership (MBHP). MassHealth is in the final stages of negotiation for a new contract.

Quality and Value in the New Contract

The new contract advances quality of care and payment innovation in a number of ways:

- The contract establishes four Pay for Performance (P4P) incentives related to improved health outcomes for MassHealth members. One of the measures focuses on improving primary care for members who are involved with the Department of Mental Health. This incentive will address the troubling finding that persons with severe and persistent mental illness have life spans up to 20 years shorter than persons without such illnesses.
- The contract strengthens the requirement for the contractor to work with Primary Care Clinicians to improve the integration of primary care and behavioral health through early



identification and screening, member engagement services for newly enrolled members, and better access to profiling information on the members in each Primary Care Clinician site.

• The contract adds a new component, the Care Management Program, which is designed to identify and engage members with chronic and complex health conditions based on a predictive modeling of their health care profile. MassHealth has identified through its claims data a number of conditions that the contractor will address through their program that includes telephonic and face-to-face contact with members and coordinating activities with members' health care providers. The goal is to prevent unnecessary use of emergency departments and inpatient hospitalizations, improve access to primary care, improve medication adherence and identify unmet health care needs through the interventions. The contractor has also proposed to establish five "practice-based" care management programs, a precursor to an Accountable Care Organization. The contract also establishes four care management outcomes that will allow the contractor to earn additional payments for improving health and quality of life indicators for members.

Emphasis on Special Populations

This contract contains a number of features that address special MassHealth populations:

- PCC plan members include a higher percentage of persons enrolled in MassHealth due to disabilities compared to the Managed Care Organizations.
- The contractor provides additional supports to persons with chronic mental illness through
 prevention and support activities involving certified peer specialists, who are able to provide
 unique support based on their own experiences with mental illness.
- The contractor oversees the continued development of the Children's Behavioral Health Initiative (CBHI) that addresses children with severe emotional disturbance and their families using a state of the art wraparound model of intervention. One component of the model is the deployment of Family Partners, parents of children with severe emotional disturbance, to support families alongside trained professionals. The implementation of this service for all Masshealth members under 21 has resulted in a reduction of inpatient psychiatric hospitalizations since its inception in July 2009.
- The contractor will have a Member Engagement Center with multi-lingual capacity for new enrollees to gain access to both primary care and behavioral health care services.

Primary Care Payment Reform

MassHealth is currently developing a Primary Care Payment Reform (PCPR) Initiative that will introduce risk-adjusted comprehensive primary care payments for providers participating in MassHealth's managed care networks, including those in the Primary Care Clinician Plan and Managed Care Organizations. The initiative will give primary care providers greater flexibility and technical resources to deliver high quality care to their patients. Providers participating in this initiative will enter into a shared risk/saving arrangement and receive a risk-adjusted per member per month payment for a defined set of primary care and behavioral health services. Participants will also be eligible to receive quality incentive payments based on their performance on 37 quality metrics. MassHealth is currently



working with stakeholders to develop a comprehensive package of care for members and a Request for Information (RFI) has been released requesting comment on the proposed quality metrics.

This initiative is described in more detail in the project narrative.

Taken together, the innovative projects at MassHealth support movement toward global payments and integrated systems of care, as represented in Figure 7 below.

Global **Payment innovation True Accountable Care Payment** Duals Payment Methodology **PCPR** Asthma Pilot РСМНІ **Delivery system** "Business as usual" transformation **DSTI** Current Market **FFS** Limited **Full Care** Integration Integration

Degree of Integration

Figure 7. MassHealth Initiatives Support Payment Reform and Care Integration

5.4 Group Insurance Commission

The Group Insurance Commission (GIC) was established by the Legislature in 1955 to provide and administer health insurance and other benefits to the Commonwealth's employees and retirees, and their dependents and survivors. The GIC also covers housing and redevelopment authorities' personnel, participating municipalities, and retired municipal employees and teachers in certain governmental units. The Group Insurance Commission is an independent state agency governed by a



fifteen-member Commission appointed by the Governor. Commission members encompass a range of interests and expertise including labor and retirees, the public interest, Executive Branch administration, and health economics.

The GIC's FY2012 appropriation was \$1.6 billion. There are currently approximately 200,000 subscribers and 400,000 lives covered by the GIC. The mission of the GIC is to deliver high quality care at reasonable costs.

The GIC has been a leader in payment innovation. In Fiscal Year 2012, the Commonwealth of Massachusetts was facing budget challenges like every other state. Those challenges were exacerbated by losses in federal stimulus funds and expanding health care costs. These factors combined to present more formidable budget challenges than had been seen before. The GIC had already increased costs to enrollees during fiscal year 2010. Copays and premium percentages paid had been increased and a new calendar year deductible had been instituted. Since 2004, employees have paid tiered copays for doctors and hospitals based on quality and/or cost efficiency – an early model of "value-based purchasing" which has become the goal of most forward-looking purchasers. An expected influx of 2,000 additional employees from the newly consolidated transportation department would further increase the cost pressures for the fiscal year.

In July 2010 the GIC had introduced two more limited network health plan options with the same benefits as the equivalent, but higher premium, health plans, but with some of the more expensive providers excluded. On average, the GIC's limited network plans, which include HMO options, cost 20 percent less than the wider network options. However, relatively few people had enrolled in these plans. During the spring 2010 annual enrollment, only 2.3 percent of employees had switched health plans. The Commission explored options to encourage more employees to consider these limited network plans.

The Commission's approach to increase enrollment was both innovative and challenging: require all state employees to re-enroll in health insurance and give them an incentive – three months of free health insurance premiums -- for choosing a limited network plan. (Retirees, non-Massachusetts residents, and municipal members would be exempt from this requirement and incentive.)

The result of this effort was a tremendous success. Over 30 percent of state employees selected a limited network plan, up from 19 percent before the open enrollment. State employees who enrolled in a limited network plan saved on average over \$600 for an individual and over \$1,400 for a family plan. And the Commonwealth's projected fiscal year 2012 savings from this initiative are over \$20 million. The GIC's costs were projected to rise 4.0 percent without the re-enrollment and incentive to join a limited network plan. Because the enrollment in limited network plans increased so dramatically, the GIC's overall projected FY12 cost increase is estimated at 2.4 percent.

Other innovative features of the GIC include the Clinical Performance Improvement Initiative. This Initiative uses claims data to "tier" individual physicians; associated member copay differentials reward enrollees who use high quality, efficient providers. The GIC also promotes medical homes, wellness



initiatives, bundled and global payment arrangements, and reporting of hospital performance on Leapfrog's safety measures.

In the fall of 2012, supported by new cost-containment legislation, the GIC is re-procuring all of its health plans for the five year period beginning July 1, 2013. The major aim of this procurement is to encourage the implementation by health plans of alternative payment methodologies as a means to improve the quality and coordination of care for members and as a way to make providers accountable for the efficient use of financial resources. The GIC anticipates that by aligning its efforts with MassHealth and others in a multi-payer approach, it can move the health care market toward higher and more consistent quality of care at lower cost, at a more accelerated rate than would be feasible if each moved without reference to the other.

5.5 Health Connector

The Commonwealth Health Insurance Connector Authority (Health Connector) is an independent state authority created by chapter 58 of the Acts of 2006 to implement key elements of Massachusetts' historic health reform law. The Health Connector serves as an Exchange that assists individuals, families, and small employers in acquiring health coverage either through the Commonwealth Care or Commonwealth Choice programs. Commonwealth Care is a subsidized insurance program available to adults in Massachusetts earning up to 300 percent of the Federal Poverty Level who generally do not have access to Employer Sponsored Insurance or other subsidized insurance and who meet certain other eligibility guidelines. Commonwealth Choice is a non-subsidized insurance program available to individuals and to small employers with 50 or fewer employees. In addition to administering these programs, the Health Connector is also responsible for policy development associated with the adult health coverage mandate and administration of appeals for those tax filers who have chosen to appeal potential tax liabilities for not having coverage.

Approximately 190,000 Massachusetts residents receive assistance with their health care costs through the Commonwealth Care program. Members may choose from among the approved MCOs that serve their region. Depending on their income level, Commonwealth Care members may be responsible for paying a monthly premium. Eligible individuals earning up to 100 percent FPL (Plan Type 1 members) are not required to pay a premium. Individuals earning between 100 and 150 percent FPL (Plan Type 2A members) always have at least one health plan option without a premium.

Member Income Level	Base Enrollee Premium
0-100% FPL	\$0
100.1-150% FPL	\$0
150.1-200% FPL	\$40
200.1-250% FPL	\$78
250.1-300% FPL	\$118



Through competitive procurements, Commonwealth Care has been able to offer quality, affordable health insurance coverage at an average annual premium trend of three to four percent, considerably lower than trends seen in commercial health insurance. The FY2013 Commonwealth Care procurement, for example, is projected to achieve a net five percent decrease in aggregate rates paid to health plans – for the second year in a row – and without reducing benefits or increasing member copayments.

By facilitating apples-to-apples comparison of health plans, the unsubsidized Commonwealth Choice program has enabled shoppers in the small- and non-group markets to find and compare prices for high-quality private health insurance, which helps them more easily identify the health plan that best meets their needs and budgets. In July of 2011, the Health Connector further improved the value of the Commonwealth Choice program to small businesses, by eliminating all upfront fees charged to employers as well as offering up to a fifteen percent premium subsidy for eligible small businesses that participate in the Health Connector's new wellness program, "Wellness Track."

With the passage of the federal Affordable Care Act, the Health Connector has focused its efforts on fashioning "Connector 2.0" – a vibrant health insurance Exchange that builds upon its success to date and is on the path to be compliant with new national health reform rules and fully responsive to an evolving health care landscape.

6. Health Information Technology

6.1 Introduction

Massachusetts has been deeply engaged in efforts to promote Health Information Technology (HIT) adoption and meaningful use of EHRs. The state's new health care law builds on the strength of existing efforts.

Chapter 305 of the Acts of 2008, an Act to Promote Cost Containment, Transparency and Efficiency in the Delivery of Quality Health Care was signed into law by Governor Patrick in August 2008. It established the goal of state-wide implementation of EHRs in all provider settings as part of an interoperable health information exchange by the end of 2014. Chapter 305 also provided \$15 million in initial funding and established the Massachusetts eHealth Institute (MeHI) within the Massachusetts Technology Collaborative (MTC), and a Health Information Technology Council (HIT Council) that is chaired by the Secretary of Health and Human Services.

The state's Health Information Technology strategy is summarized in the Commonwealth's Health Information Technology Strategic Plan, the 2010 Health Information Exchange Strategic and Operational Plan, and the State Medicaid Health Information Technology Plan. Stakeholders have been actively engaged in the design and implementation of the state's health information technology vision.



6.2 Overview of HIT Governance in Massachusetts

Health Information Technology Council (HIT Council)

The HIT Council's role, as described in Chapter 305, is to direct MeHI on the dissemination of health information technology across the Commonwealth, including the deployment of electronic health records systems in all health care provider settings that are networked through a statewide health information exchange. The HIT Council consists of the Secretary of Health and Human Services, who serves as the Council's chair; the Secretary of Administration and Finance, or designee; the Executive Director of the Health Care Quality and Cost Council; the Director of the Office of Medicaid; and five members appointed by the governor including an expert in health information technology, an expert in law and health policy, and an expert in health information privacy and security.

Health Information Exchange-Health Information Technology (HIE-HIT) Advisory Committee
The Secretary of Health of Human Services recast the state's HIE governance structure in June 2011, by creating the HIE-HIT Advisory Committee (The Advisory Committee). The Advisory Committee's charge is to serve as the mechanism for channeling advice and recommendations to the HIT Council from interested private and public sector constituencies. The Advisory Committee's primary focus is to make recommendations on all aspects of the design and implementation of Health Information Exchange (HIE) and to weigh in on other health information technology policies for the Commonwealth.

The creation of the Advisory Committee fosters effective public-private collaboration to shape the successful implementation of the statewide HIE. The Advisory Committee is co-chaired by the Chief Information Officer for Massachusetts' EOHHS and the Chief Information Officer for a large teaching hospital. The Advisory Committee includes over eighty stakeholders who participate in one or more workgroups:

- Legal and Policy
- Technology and Implementation
- Finance and Sustainability
- Consumer and Public Engagement
- Provider Engagement and Adoption

Massachusetts eHealth Institute (MeHI)

MeHI is collaborating with the Board of Registration in Internal Medicine, MassHealth, and MDPH to ensure a consistent approach for meeting the needs of both Chapter 305 and the Meaningful Use requirements of the HITECH Act. MeHI's Director is appointed by MTC's Executive Director and is charged, under the Act, with preparing the Commonwealth's Health Information Technology Plan and Health Information Exchange Strategic and Operational Plan and their corresponding budgets for implementation. MeHI operates under the guidance of both the MTC and the HIT Council and its chair, the Secretary of EOHHS.

With direction from the HIT Council, MeHI also develops the various mechanisms for funding HIT through use of the state eHealth Fund. MeHI currently supports three separate and distinct programs:



- Regional Extension Center Program (MeHI/REC): The structure of this program is based on the
 use of Implementation and Optimization Organizations (IOOs) to provide implementation
 services to physicians. The IOOs are contractually obligated to provide the services to guarantee
 that providers achieve meaningful use. The MeHI/REC program provides oversight of the IOOs
 and EHR vendors to ensure conformance with state (including Chapter 305) and federal law in
 the statewide implementation of EHR. MeHI/REC administers ONC "direct assistance" to
 priority primary care providers who meet federal grant guidelines;
- Health Information Exchange Program (MeHI/HIE): The structure of this program is based on the use of a diverse group of public and private stakeholders to support a "network of networks" approach to a Statewide HIE. The MeHI/HIE role is to provide administration of the ONC Cooperative Agreement funds and to provide "last mile" services to enable faster adoption of HIT and connectivity to the HIE; and
- The Medicaid EHR Incentive Payment Program Enrollment, Validation, and Outreach Team Program (MeHI/EVOT): The structure of this program is based on a separate and distinct operational team that supports the Medicaid Incentive Payment Program through an agreement with EOHHS. The MeHI/EVOT role is to provide incentive program enrollment, validation, and outreach support services to providers.

6.3 Health Information Exchange

Massachusetts is in the process of implementing a Health Information Exchange to enable participants to exchange patient health information securely and reliably. The HIE is governed by the statewide HIT council and associated workgroups, chaired by the Secretary of Health and Human Services, with representatives from state government (including the Medicaid program), providers, payers, industry organizations, community organizations, educators, and other experts. Development work for the first phase is underway now with the initial Go-Live anticipated in October 2012. This first phase includes core technical infrastructure and the ability for clinicians to communicate with each other. Subsequent phases will include more advanced capabilities necessary for upcoming meaningful use requirements, such as the ability to automatically report quality metrics and the ability to semi-automatically submit clinical data such as immunization history, reportable lab results, cancer cases, and treatment reports related to substance abuse to various agencies within the Department of Public Health. A clinical information repository is envisioned in the future to support the information needs related to future trends in health care including accountable care organizations.

The HIE is based on the ONC DIRECT messaging standard (www.directproject.org) to facilitate secure message exchange between clinicians and other members of the healthcare community. The HIE is designed to support several usage modes to address the needs of the various constituencies. For the smallest providers and long term care facilities without significant IT expertise or funding, the system can be accessed via a web interface that is much like commercial webmail environments. This web interface will contain all the robustness, security, and auditing required for proper handling of patient PHI. For some larger institutions, Massachusetts is making available a small interface device known as LAND, suitable to install on the premises of the clinician, which provides a secure gateway between installed clinical systems and the HIE. The largest and most sophisticated institutions using state-of-



the-art EHR systems are anticipated to interface directly to the HIE using the most advanced standards available. When EHR's are fully integrated in this manner, messages can be sent from within the patient context of a sending clinician's EHR and messages can be automatically (or semi-automatically) be associated with an electronic patient chart on the receiving side.

6.4 Health Insurance Exchange/Integrated Eligibility Systems

One of the Commonwealth's top priorities in the transition to 2014 is to create a single, integrated process to determine eligibility for the full range of health coverage programs including Medicaid, CHIP, the Basic Health Plan, and premium tax credits and cost-sharing subsidies. Therefore the state has launched an extensive project to develop a new web-based platform for eligibility determination and enrollment, known as the HIX/IES development project. Participants in this effort include MassHealth, the Connector, UMass Medical School, and the New England States Collaborative for Insurance Exchange Systems. Through funding from the Center for Consumer Information and Insurance Oversight (CCIIO), CMS and other sources, this group is undertaking a long-term, phased development process to build the new system. Other New England states that are part of the regional Collaborative will have the opportunity to learn from Massachusetts' pioneering efforts and to adopt some of our processes and systems for their own state Exchanges.

By the 2014 launch, the Health Insurance Exchange portal (HIX) will allow consumers to shop for health insurance, apply for financial assistance, and enroll in private and public plans in real-time. The Integrated Eligibility System (IES) will determine eligibility for the Medicaid and CHIP programs - either directly or by 'talking' to MassHealth's existing eligibility system, MA21, in real time. It will also determine tax credit eligibility for employers and employees shopping for private health insurance through the Exchange. In the future, the HIX/IES system will expand to allow consumers to apply for other public assistance programs such as SNAP and TANF. The HIX/IES solution will require updating, leveraging, or replacing existing state systems; it also will require developing new systems that can communicate with health plans and with the federal data hub(s) to verify applicants' income and immigration status.

7. Roadmap for Health Care Transformation

Massachusetts has taken a thoughtful and collaborative approach to health reform. In 2009, the Massachusetts Health Care Quality and Cost Council, a public entity responsible for setting quality and cost targets for the Commonwealth, developed the "Roadmap to Cost Containment." This Roadmap detailed eleven strategies that have the potential to reduce health care costs, or cost growth. In 2011, Governor Deval Patrick introduced legislation proposing a balanced and comprehensive approach to health care cost containment. Included in this legislation were many of the strategies endorsed by the QCC, including payment reform, system integration and redesign, health resource planning, and malpractice reform. In 2012, the legislature passed, and the Governor signed into law, "An Act improving the quality of health care and reducing costs through increased transparency, efficiency and innovation," or Chapter 224 of the Acts of 2012. Chapter 224 sets an annual target for the growth of total health care expenditures and supports strategies to reform payments, promote integrated



delivery systems, increase transparency, address market power, promote wellness, reform malpractice policy, and support health information technology.

Even prior to the recent enactment of comprehensive health care cost containment legislation, Massachusetts has undertaken a number of initiatives to advance the goals and strategies endorsed in this legislative framework. With legislation now in place, the state is poised to accelerate efforts to achieve its vision of high quality health care at lower cost, through innovation and multipayer collaboration.

Massachusetts' vision for state innovation, as reflected in Chapter 224, and includes the following strategies.

7.1 Set a Target for Health Care Cost Growth

Chapter 224 sets a first-in-the-nation target for controlling the growth of health care costs. The law holds the annual increase in total health care spending to the rate of growth of the state's Gross State Product (GSP) for the first five years, through 2017, and then even lower for the next five years, to half a percentage point below the economy's growth rate, and then back to GSP.

Under the new law, the Center for Health Information and Analysis (CHIA) will analyze each year whether the target has been met and the Health Policy Council (HPC) will hold annual hearings on health cost trends in the Commonwealth. If the target has not been met, the HPC can require entities that have exceeded the cost growth target to create a performance improvement plan to improve efficiency and reduce cost growth.

Creating a target for health care cost growth commits all stakeholders in the Commonwealth, including government, providers, payers, and consumers, to the goal of health care cost reduction.

7.2 Transform the Payment and Delivery System

Transformation of the payment and delivery systems will be central to controlling health care costs in Massachusetts. The current system of payments for health care services is dominated by fee-for-service, which is inherently inflationary, rewards overuse of health care services, does not reward primary care, preventive care, or care coordination, and contributes to administrative complexity. The current system of fee-for-service payments also facilitates a siloed delivery system, rather than integration and coordination of care.

Massachusetts is moving toward a payment system that encourages and reinforces fundamental cultural and structural changes in our delivery system, such as greater investments in primary care capacity, promotion of the right care in the right place, greater attention to prevention and wellness, better management of chronic disease, better integration of behavioral health care, better coordination of care across care settings, and capital investments and technology diffusion based on need, evidence and quality. Global payment models have the potential to provide incentives for



efficiency in the delivery of services that are missing in the fee-for-service system, while potentially driving improvements in quality through better coordination of care.

Chapter 224 promotes the adoption of payment and delivery system reforms, using a number of mechanisms. The new law positions government payers, including MassHealth and the Group Insurance Commission as drivers of payment reform, by requiring these programs to implement alternative payment methodologies by July 1, 2014. The law also requires MassHealth to develop an innovation project with alternative payment methodologies including, but not limited to, bundled payments, global payments, shared savings and other innovative methods of paying for health care services. MassHealth is to ensure, among other requirements, that alternative payment methods support the state's efforts to meet the health care cost growth benchmark and to improve health, care delivery and cost-effectiveness; include incentives for high quality, coordinated care, including wellness services, primary care services and behavioral health services; include a risk adjustment element based on health status; and include a risk adjustment element that takes into account functional status, socioeconomic status or cultural factors, to the extent possible.

Chapter 224 sets out specific benchmarks for MassHealth's transition to alternative payment methodologies, requiring that MassHealth pay for health care utilizing alternative payment methodologies for no fewer than 25 percent of its enrollees that are not also covered by other health insurance coverage by July 1, 2013, for 50 percent by July 1, 2014, and for 80 percent by July 1, 2015.

In addition, the law requires the Executive Office of Health and Human Services to seek a federal waiver of statutory provisions necessary to permit Medicare to participate in alternative payment methodologies.

Though the law does not mandate that private payers move to alternative payments, many payers have already done so and Massachusetts has engaged with these private payers in a number of ways, such as collaboration on medical homes, health information technology, and quality initiatives, for example. In addition, providers already participate in a number of alternative payment arrangements, including Medicare ACOs and shared savings programs, as well as alternative contracts. Chapter 224 builds on this momentum in the private market by providing for the development of processes for the certification of organizations as accountable care organizations and patient centered medical homes. In addition, the law creates a "Model ACO" program through which organizations can be designated as "Model ACOs" and receive priority from MassHealth, the Group Insurance Commission, and the Health Connector.

7.3 Ensure the Widespread Adoption and Use of Health Information Technology

HIT is necessary infrastructure to improve the quality of care provided to patients and improve efficiency through better coordination of care among multiple providers, providing patients with electronic access to their provider and their own health information, and making information more readily available for population health management purposes. HIT, if it is designed with the explicit

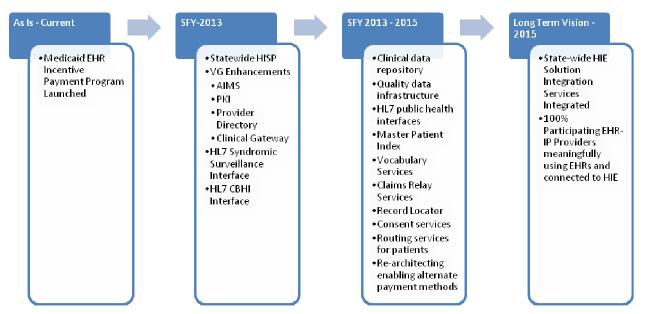


goal of supporting system redesign, has the potential to reduce unnecessary and duplicative testing, reduce the administrative burden on providers, and improve clinical quality.

Significant work to advance HIT is already underway. Chapter 305 of the Acts of 2008, an Act to Promote Cost Containment, Transparency and efficiency in the Delivery of Quality Health Care was signed into law by Governor Patrick in August 2008. It established the goal of state-wide implementation of EHR in all provider settings as part of an interoperable health information exchange by the end of 2014. Massachusetts Health Information Exchange is anticipated to go live in October 2012, and will serve as the information highway for exchange of health information. Massachusetts also provides technical assistance and financial support to help providers in adopting electronic health records.

Massachusetts' health Information Technology plans are documented in the Commonwealth of Massachusetts Health Information Technology Plan, the Commonwealth of Massachusetts Health Information Exchange Strategic and Operational Plan, and the state's Medicaid Health Information Technology Plan. Stakeholders have been actively engaged in the design and implementation of the state's health information technology vision.

The graphical pathway below represents the journey from the state's current Medicaid HIT/HIE environment to the state's future environment.



Chapter 224 further advances the state's comprehensive vision for development of the HIE and electronic medical records. It creates a clear division of responsibilities between HIT dissemination and adoption (which will be led by the Massachusetts e-Health Institute (MeHI)) and the Health Information Exchange (which will be led by the Executive Office of Health and Human Services). Each area of responsibility has its own Fund governed exclusively by the responsible entity. There are requirements for collaboration and consultation between the two entities and the Health Information



Technology Council. Chapter 224 also lays out requirements for opt-in/opt-out provisions, and policy requirements for privacy, security and breach notification. The law provides for up to \$30 million in new funds over 4 years for providers who are not eligible for Medicare or Medicaid incentive payments and to support connection through the HIE.

The awarding of funds is tied to whether the investment will support the goals of the state, including the health care cost growth benchmark. In awarding funds, the director of MeHI is to consider how the investment will support the Commonwealth's plan for innovation, including for innovative health care delivery and payment models, integration of mental health, behavioral and substance use disorder services with overall medical care, and meeting the health care cost growth benchmark.

Chapter 224 requires all providers in the Commonwealth to implement fully interoperable electronic health records systems that connect to the statewide HIE by January 1, 2017 and provides for penalties for non-compliance as well as waivers. The law also requires accountable care organizations, patient centered medical homes, and risk bearing provider organizations to have interoperable electronic medical records by December 31, 2016.

7.4 Develop Health Resource Planning Capability

The oversupply of health care services in Massachusetts is a driver of the overuse of health care services. Overuse, in turn, has been identified as a significant factor in health care cost growth. As a state, we are heavily reliant on hospital-based care, and lack an adequate supply of primary care providers. The payment reform strategies highlighted in this Roadmap are designed, in part, to specifically address these problems. In addition, the state intends to enhance its current analysis of health resources with required regular statewide assessments of the Commonwealth's health resource needs and informed recommendations related to planning, assessing and allocating health care services based on the needs of Massachusetts residents.

Chapter 224 establishes a statewide health planning council and advisory committee, creates a statewide public hearing process, and requires the development of a state health plan. The state health plan will identify and prioritize the needs of the Commonwealth in health care services, providers, programs, and facilities, and will inventory the location, distribution, and nature of all health care resources in the Commonwealth. The plan will also make recommendations for the appropriate supply and distribution of resources, programs, capacities, technologies and services on a state-wide or regional basis based on an assessment of need for the next 5 years and options for implementing such recommendations.

Chapter 224 also ties the state health plan to the Determination of Need, by directing the Department of Public Health to issue guidelines, rules or regulations consistent with the state health plan for making determinations of need. The Determination of Need Program (DoN) promotes the availability and accessibility of cost effective quality health care services to the citizens of Massachusetts and assists in controlling health care costs. DoN was established by the Legislature in 1971 to encourage equitable geographic and socioeconomic access to health care services, help maintain standards of



quality, and constrain overall health care costs by eliminating duplication of expensive technologies, facilities, and services. DoN receives applications from health care facilities planning substantial capital expenditures or substantial change in services. It is the responsibility of DoN to evaluate proposals and make recommendations to the Public Health Council members who then approve or disapprove the expenditures and/or new services.

To monitor and address the market power and price disparities that can lead to higher costs, the law allows the Health Policy Commission to conduct a cost and market impact review of any provider organization to ensure that they can justify price variations. Provider and provider organizations are required to report material changes to their operations or governance structures. If the Health Policy Commission determines that a proposed change will likely have a significant impact on the Commonwealth's ability to meet the health care cost growth benchmark or on the competitive market, the Commission can undertake a cost and market impact review which includes a close review of the provider organization's business and relative market position. The law also identifies triggers for when a provider organization will be referred to the attorney general for investigation.

Chapter 224 also directs both the Health Policy Commission and the Center for Health Information and Analysis to monitor trends in the health care market, including the impact of the development of Accountable Care Organizations and other market changes on the availability and cost of health resources in the Commonwealth.

7.5 Adopt Sensible Malpractice Reforms

The practice of defensive medicine, whereby doctors provide unnecessary or low-value service out of fear of legal liability, is another source of overuse in the medical system. A 2008 report by the Massachusetts Medical Society estimated that the practice of defensive medicine costs \$1.4 billion per year in the Commonwealth. An important element of a redesigned health system is providing adequate protection to providers to help reduce the practice of defensive medicine.

Chapter 224 includes two important provisions for sensible malpractice reform. The first reform is a requirement for a "cooling-off" period before a party may initiate a suit, during which the claimant and provider are directed to exchange factual information about the claim and the defense. Chapter 224 also requires providers to disclose when a patient has suffered an unanticipated outcome with significant medical complication as a result of a provider's mistake, and makes providers' apologies inadmissible as evidence. Studies have shown that programs that encourage providers to disclose and apologize for medical mistakes can reduce lawsuits, but due to worries about litigation, providers oftentimes remain silent.

7.6 Encourage Consumer Engagement

Consumer engagement is essential to cost containment efforts. For the Commonwealth to succeed in achieving its health care goals, consumers will need to be actively engaged in medical decision-making and understand the health care system as a whole. Chapter 224 recognizes the importance of



consumer engagement in medical decision-making and specifically includes shared decision-making as one of the criteria used to develop certification standards for patient centered medical homes.

In addition, many of the activities required by Chapter 224 will increase and improve the health care information provided to consumers. Building on the efforts of the Health Care Quality and Cost Council, CHIA will provide extensive information about health care costs on its website, including information that allows consumers to compare the quality, price and cost of health care services. The website is intended to assist consumers in making informed decisions regarding their medical care and informed choices among health care providers, and will be presented in a format that is understandable to the average consumer.

In addition, Chapter 224 adopts several strategies to promote price transparency that will also facilitate consumer engagement (discussed below).

7.7 Promote Transparency

There are substantial efforts underway in the Commonwealth to promote transparency and analysis on health care quality and costs. The Health Care Quality and Cost Council, since its inception, has been charged with collecting and making quality and cost data more available to consumers as well as to the health care community. Chapter 305 of the Acts of 2008 expanded the efforts of the Division of Health Care Finance and Policy to collect comprehensive data from public and private payers and annually hold a public hearing on costs and cost trends. The Attorney General also participates in this hearing. The Division of Insurance has also played an important role in promoting transparency by reviewing rate increases proposed by carriers in the small group market.

Chapter 224 will build on these efforts. In addition to expanding data collection and reporting by CHIA and HPC on cost and cost trends, and extending the ability of the Division of Insurance to review and presumptively disapprove rates, Chapter 224 also adds several new mechanisms to promote transparency, particularly for consumers. By October 2013, health plans will be required to provide a toll-free number so that consumers will be able to obtain information about the cost of a proposed admission or procedure, as well as the estimated amount that the consumer will be required to pay. By January 2014, providers will also be required to provide a cost estimate to patients, if requested. These measures are intended to give consumers better information about the cost of their health care.

7.8 Promote Prevention and Wellness

The medical costs of people with chronic diseases account for a significant proportion of our nation's medical costs. Many chronic diseases arise and worsen because of a variety of factors, including environmental conditions, socio-economic factors, and behaviors of the affected individuals. In Massachusetts, while we have made great strides in reducing some unhealthy behaviors, there is much work still to be done. Promoting prevention and wellness will require a multi-pronged strategy, including community engagement, employer engagement, regulatory interventions, and public health campaigns.



Chapter 224 takes a number of steps to promote prevention and wellness. Most notably, the new law creates a prevention and wellness trust fund and provides the fund with \$15 million per year over 4 years. The funds are to be used to support the state's cost containment goals and will be awarded in a competitive award process.

The Department of Public Health, in consultation with the Division of Insurance, will produce a wellness guide for payers, employers, and consumers. In developing the guide, the Department will examine and study best practices and successful models of private sector wellness and health management programs. The Department will also issue a report that identifies the elements of wellness programs that should be promoted in support of the state's efforts to meet the health care cost growth benchmark.

Wellness programs implemented by business have resulted in both savings to premiums as well as overall savings to the cost of health care. In recognition of the benefits of wellness programs, the new law provides tax credits to businesses that implement wellness programs. The value of these credits is 25 percent of the cost of the program, up to \$10,000 per employer, with a total value of \$15 million per year for 5 years.

7.9 Encourage Insurance Plan Design Innovation

Some employers have achieved significant cost reductions by introducing financial incentives and supportive outreach programs that promote employee health. These programs usually provide incentives for at-risk or high-cost populations of employees to use services that are proven to be of "high value" and are aimed at improving health and reducing costs. Programs also have used financial incentives to encourage the use of more efficient and higher-performing providers. For example, the Group Insurance Commission, which procures health benefits for state employees and retirees, includes tiering of co-payments for services provided by different providers. Chapter 224 further authorizes a system of smart tiering, whereby payers would tier by facility by service, rather than just by facility.

Another cost containment tool used in plan design is the use of limited or selective networks. A limited network plan essentially offers the same benefits as the more expensive health plans, but with more limited choice of physicians, hospitals, and other providers. These types of plans save money because more expensive providers are not usually included in these networks. Chapter 224 increases the base premium rate discount for selective or tiered network plans offered to small businesses to 14 percent. Currently, these plans are 12 percent cheaper.

7.10 Promote Efficiency through Administrative Simplification

Most health care spending pays for the direct provision of care. However, administrative costs, in terms of both costs incurred by insurers to administer coverage and costs incurred by providers and patients in navigating the system and complying with rules, are significant. Chapter 305 of the Acts of 2008 included a number of efforts to reduce administrative complexity in health care, including the Division of Insurance's (DOI's) effort related to uniform billing requirements by payers.



Chapter 224 standardizes some additional administrative functions in the health care system. For example, carriers will be required to utilize a standard prior authorization form to be developed by the Division of Insurance. This practice means that providers will no longer be required to fill out different forms for each carrier. Similarly, the Division is charged with establishing standardized processes and procedures for the determination of a patient's health plan benefit eligibility. Standardization of these and other similar processes is intended to decrease some of the administrative burden that is currently placed on providers.

8. Measuring our Progress

As Massachusetts continues its journey toward universal coverage, high quality, and affordable health care, the state will continue to carefully monitor health system performance along the dimensions of coverage, access, quality, and costs.

Massachusetts already maintains robust data collection efforts. For example, the Division of Health Care Finance and Policy conducts a household insurance survey every one to two years, which provides information on health insurance coverage and access to care (including barriers to care). HCFP also conducts an employer survey approximately every two years that provides information on employer offers of coverage as well as premium contributions for employers and employees.

Data on the quality of care come from a number of sources, including information reported to the Department of Public Health for measures such as hospital acquired infections, falls, and flu vaccination rates. DPH also collects and summarizes information from surveys, vital statistics, and other sources, in its report on the health status of Massachusetts residents.

Many public and private payers in Massachusetts collect measures of the quality of care, as part of the implementation of innovative payment methodologies. These include measures collected by payers using alternative contracts, such as the AQC; measures required by CMS for Pioneer ACOs and the Medicare Shared Savings Program; and measures required by CMS for Medicaid and CHIP programs.

To help streamline and coordinate quality measures, legislation in 2010 established a Statewide Quality Advisory Committee (SQAC) to define a standard list of healthcare quality measures. Currently, providers submit a wide variety of quality measures to different government, trade and improvement agencies, with little to no standardization between these organizations. By creating a Standard Quality Measure Set (SQMS) for the state, the SQAC may be able to reduce provider reporter burden, ensure that the strongest quality measures are in use, and give consumers the confidence to compare provider quality from public sources. The measure set is intended for annual reporting by Massachusetts providers, and for insurance companies to use to evaluate provider quality and create tiered products.



The SQAC was established by Chapter 288, Section 54 of the Acts of 2010, as amended by Chapter 359 of the Acts of 2010. Its members represent government agencies, hospitals, medical associations, the Group Insurance Commission, employer associations, medical groups, health plans and consumer groups. The Committee members use their expertise to evaluate the measures that are statutorily mandated for inclusion in the SQMS and nominate additional quality members for consideration. SQAC members' ultimate responsibility is to vote on individual measures to include or exclude in the SQMS. To be included, quality measures must meet a minimum threshold of practicality and validity, and meet at least one of the Committee's priority areas. In 2012, these areas included community and population health, behavioral health, and care coordination and care transitions.

Under its statutory mandate, the SQAC is required to include the following four measure sets in the SQMS: (1) Centers for Medicaid and Medicare Services' Hospital Process Measures; (2) Hospital Consumer Assessment of Healthcare Providers and Systems Survey (H-CAHPS); (3) Healthcare Effectiveness Data and Information Set (HEDIS); and (4) Ambulatory Care Experiences Survey (ACES). With the assistance of committee staff, the SQAC evaluated each of the mandated measures and assigned it either a strong, moderate, or weak level of recommendation. The same process was used to evaluate non-mandated measures, which were initially proposed by members of the public, SQAC Committee Members, or experts with knowledge of the Committee's three priority areas. The chosen measures, along with the statutorily mandated measures, will make up the official SQMS. In addition to endorsing specific measures, the Committee will identify future quality measurement priority areas, and may choose to disseminate its recommendations to non-governmental stakeholders.

Chapter 224 continues the work of the SQAC and moves the SQAC into the Center for Health Information and Analysis. Chapter 224 provides that the SQAC will provide annual recommendations for updates to the standard quality measure set.

In addition to working to standardize a quality measure set, Massachusetts has developed an All Payer Claims Database that can be leveraged to provide providers with data needed to manage their panels in the context of innovative payment methodologies as well as provide information important for understanding cost trends and drivers. The database is being expanded and when fully developed it will be comprised of medical claims, dental claims, pharmacy claims and information from member eligibility files, provider files and product files that will include fully-insured, self-insured, Medicare and Medicaid data. It will also include clear definitions of insurance coverage (covered services, group size, premiums, co-pays, deductibles) and carrier-supplied provider directories. The result is a dataset that will allow for a broad understanding of cost and utilization across institutions and populations.

9. Moving Forward

Chapter 224 provides the statutory framework for Massachusetts to move forward with its vision for health care innovation. Over the next months and years, Massachusetts will be implementing the provisions of the law, including developing regulations where necessary. As directed by the law,



Massachusetts will be seeking a Medicare waiver to pursue innovative payment methodologies through Medicare. Massachusetts will also seek waivers or state plan amendments as needed for its Primary Care Payment Reform Initiative.

10. Conclusion

As a state, Massachusetts has a long and proud history as a health care leader and innovator. The state's vision for health care innovation is bold, necessary, and possible. Thanks to the work already undertaken by government, providers, payers, and consumers, and the history of collaboration and partnership among stakeholders, the state is well positioned to address the challenge of health care costs in this new phase of health reform.



Appendix 1: Selected Massachusetts reports related to health, health care costs, quality, and access

<u>Publications from the Massachusetts Department of Public Health</u>

The Department of Public Health annually publishes dozens of data reports, presentations, fact sheets and bulletins with in-depth information on selected topics. For example, every year separate reports devoted to birth, death, cancer, occupational health, substance abuse and the Behavioral Risk Factor Surveillance System are released and available on the Department's website. In addition to these annual reports, the Department publishes current information as it becomes available, such as H1N1 flu information, and new one-time reports on special topics.

http://www.mass.gov/dph/publications

Health of Massachusetts

Health of Massachusetts provides useful data on the health of Massachusetts residents, in an easy-to-understand and accessible format. It couples statistical information with policy perspectives from some of the leading experts in the field of public health, allowing for greater context in understanding the broad issues the state faces. Designed to inform policy makers and key community partners, this report contains more than 200 charts and draws information from more than 50 sources. http://www.mass.gov/dph/healthofmassachusetts

Massachusetts Community Health Information Profile (MassCHIP)

MassCHIP is a dynamic, user-friendly information service that provides free, online access data. MassCHIP, allows users to run their own data reports or get access to hundreds of already generated reports. Users of MassCHIP have access to 36 major data sets. http://www.mass.gov/dph/masschip

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous, random digit dial, landline-only telephone survey of adults ages 18 and older and is conducted in all states as a collaboration between the federal Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been conducted in Massachusetts since 1986. The BRFSS collects data on a variety of health risk factors, preventive behaviors, chronic conditions, and emerging public health issues. Each year the BRFSS survey includes core questions designed by the CDC and administered by all states; optional modules designed by the CDC to be added at each state's discretion; and question sets designed in collaboration with other programs of MDPH.

http://www.mass.gov/eohhs/consumer/community-health/brfss/

Massachusetts Cancer Registry

The Massachusetts Cancer Registry (MCR) collects information on all newly diagnosed cases of cancer in the state. These data provide important information for monitoring the impact of environmental and occupational hazards. The data are also used when designing and evaluating cancer prevention and control programs. Each year, the MCR issues two main reports:



- Cancer Incidence and Mortality in Massachusetts, and
- The City/Town Supplement.

The first report provides statewide information on cancer incidence and mortality. The supplemental report contains cancer incidence information by town. The MCR also provides special publications that contain statistical data for specific cancer types or current public health issues related to cancer. http://www.mass.gov/dph/mcr

Office of Integrated Surveillance and Informatics Services

The Office of Integrated Surveillance and Informatics Services (ISIS) provides a single point of contact for infectious disease reporting in Massachusetts and is responsible for data collection and other surveillance activities for approximately 80 reportable diseases. ISIS' principal goal is to ensure the timely and accurate processing of critical infectious disease information in order for epidemiologists and nurses at the state and local health level to conduct public health investigations. ISIS monitors infectious disease information in the Commonwealth in order to identify infectious disease trends and guide policy decisions. ISIS provides oversight for surveillance and informatics initiatives that support the Bureau's epidemiological, and disease control and prevention efforts; these include MAVEN (Massachusetts Virtual Epidemiologic Network), the Commonwealth's web-based disease surveillance and case management system and electronic laboratory reporting (ELR) efforts.

http://www.mass.gov/eohhs/gov/departments/dph/programs/isis.html

HIV/AIDS Surveillance Program

The goal of the HIV/AIDS Surveillance Program is to provide a comprehensive picture of the HIV/AIDS epidemic in order to support prevention and health service activities delivered by the Department of Public Health and a statewide system of health care and social service organizations. The program also works collaboratively with planning and policy groups, health care providers and other Bureaus within the Department of Public Health, providing surveillance information and assisting with assessment of resource distribution and ongoing planning to ensure that the needs of people at risk for infection or infected with HIV are met.

http://www.mass.gov/eohhs/researcher/physical-health/diseases-and-conditions/hivaids/surveillance/

Vital Records

MDPH holds data relating to nearly 250,000 annual vital events (e.g., births, marriages, deaths) that occur in Massachusetts in accordance with Massachusetts General Laws and regulations. http://www.mass.gov/eohhs/researcher/basic-needs/vitals/vital-records.html



Cost Trends Reports

Pursuant to the provisions of M.G.L. c. 118G § 6 1/2, the Division of Health Care Finance and Policy is required to conduct an annual study regarding health care cost trends in the Commonwealth, and the factors that contribute to cost growth. The same statute authorizes the Attorney General to examine health care cost trends and cost drivers.

http://www.mass.gov/dhcfp/costtrends

http://www.mass.gov/ago/doing-business-in-massachusetts/health-care/health-care-forms-and-publications.html

Insurance Surveys

The Massachusetts Health Insurance Survey (MHIS) provides information on health insurance coverage and access to and use of health care for the non-institutionalized population in Massachusetts. The Massachusetts Employer Survey (MES) provides information on employer health insurance offer rates, employee take-up rates, health insurance premiums, employer contribution amounts, and employee cost sharing requirements.

http://www.mass.gov/eohhs/researcher/physical-health/health-care-delivery/dhcfp-publications.html#insurance_surveys

My Health Care Options

The Massachusetts Quality and Cost website is designed to be easy to use and understand and is intended to provide accurate and up-to-date information for consumers. The information comes from state and federal databases as well as other independent and trusted sources http://hcgcc.hcf.state.ma.us/

MassHealth HEDIS Measures

MassHealth has conducted HEDIS measurement since 1997 and since 2001 has collaborated with the University of Massachusetts Medical School (UMMS) to accomplish the annual assessment of the performance of MassHealth managed care plans based on selected HEDIS measures. The slate of HEDIS measures rotates biennially and typically includes nine to twelve measures. The UMMS MassHealth Quality office receives data from each of the MassHealth managed care plans and produces a summary report with benchmarks that is posted on the MassHealth website.

http://www.mass.gov/eohhs/researcher/insurance/masshealth-annual-reports.html



Appendix 2: Description of MassHealth Programs

MassHealth Standard: Individuals enrolled in MassHealth Standard receive State plan services including for individuals under age 21, Early and Periodic Screening Diagnostic and Treatment (EPSDT) benefit. Benefits are provided either through direct coverage, cost effective premium assistance or a combination of both.

MassHealth Breast and Cervical Cancer Treatment Program (BCCTP): The BCCTP is a health insurance program for women in need of treatment for breast or cervical cancer. This program offers MassHealth Standard benefits to certain women under 65 who do not otherwise qualify for MassHealth.

MassHealth CommonHealth: Individuals enrolled in CommonHealth receive the same benefits as those available under Standard; individuals under age 21 receive EPSDT service as well. Benefits are provided either through direct coverage, cost effective premium assistance or a combination of both.

MassHealth Family Assistance: Individuals enrolled in Family Assistance receive benefits similar to those provided under Standard. There are two separate categories of eligibility under Family Assistance: persons with HIV up to 200% Federal Poverty Level (FPL) and children whose family income is between 150 and 300% FPL.

MassHealth Insurance Partnership: The Commonwealth makes premium assistance payments available to certain members (including adults without children) with a gross family income at or below 300 percent of the FPL, who have access to qualifying ESI, and where a qualified small employer contributes at least 50 percent toward the premium.

MassHealth Basic: Individuals enrolled in Basic are receiving Emergency Aid to Elders, Disabled, and Children (EAEDC) or are Department of Mental Health (DMH) clients who are long-term or chronically unemployed. This Demonstration program provides either direct coverage through a managed care plan or premium assistance if qualified cost effective private insurance is available.

MassHealth Essential: Individuals enrolled in Essential are low-income, long-term unemployed individuals who are not eligible for Basic. This demonstration program provides either direct coverage through a managed care plan or premium assistance if qualified cost effective private insurance is available.

MassHealth Limited: Individuals are enrolled in Limited if they are Federally non-qualified non-citizens, whose immigration status makes them ineligible for other MassHealth programs. These individuals receive emergency medical services only.



MassHealth Prenatal: Pregnant women are enrolled in Prenatal if they have applied for Standard and are waiting for eligibility approval. These individuals receive short-term outpatient prenatal care (not including labor and delivery).

Medical Security Plan (MSP): Individuals are enrolled in MSP, a health plan provided by the Division of Unemployment Assistance (DUA), if they are receiving unemployment compensation benefits under the provisions of Chapter 151A of the Massachusetts General Laws. MSP provides health insurance to enrollees through premium assistance and direct coverage.